**United States Government Accountability Office** 

**GAO** 

Report to the Chairman of the Subcommittee on Higher Education, Lifelong Learning, and Competitiveness, Committee on Education and Labor, House of Representatives

**July 2009** 

# TEACHER QUALITY

Sustained Coordination among Key Federal Education Programs Could Enhance State Efforts to Improve Teacher Quality





Highlights of GAO-09-593, a report to the Chairman of the Subcommittee on Higher Education, Lifelong Learning, and Competitiveness, Committee on Education and Labor, House of Representatives

### Why GAO Did This Study

Policymakers and researchers have focused on improving the quality of our nation's 3 million teachers to raise the achievement of students in key academic areas, such as reading and mathematics. Given the importance of teacher quality to student achievement and the key role federal and state governments play in supporting teacher quality, GAO's objectives included examining (1) the extent that the U.S. Department of Education (Education) funds and coordinates teacher quality programs, (2) studies that Education conducts on teacher quality and how it provides and coordinates research-related assistance to states and school districts, and (3) challenges to collaboration within states and how Education helps address those challenges. GAO interviewed experts and Education officials, administered surveys to officials at state educational agencies and state agencies for higher education in the fall of 2008, and conducted site visits to three states.

### **What GAO Recommends**

GAO recommends that the Secretary of Education implement a strategy for sustained coordination among program offices. A key purpose would be to aid information and resource sharing, and strengthen linkages among its efforts to help improve teacher quality. While Education will consider forming a crossprogram group, it favors short-term, issue-specific coordination. We continue to believe sustained coordination is needed.

View GAO-09-593 or key components. For more information, contact Cornelia Ashby at (202) 512-7215 or AshbyC@gao.gov. To view the e-supplement online, click on GAO-09-594SP.

### **TEACHER QUALITY**

# Sustained Coordination among Key Federal Education Programs Could Enhance State Efforts to Improve Teacher Quality

### What GAO Found

Education allocates billions of federal dollars for teacher quality improvement efforts through many statutorily authorized programs that nine offices administer. Education officials said these offices share information with one another as needed, and from time to time Education has established and completed broader collaborative efforts. Yet, GAO found little sustained coordination and no strategy for working systematically across program lines. Education also has not described how it will coordinate crosscutting teacher quality improvement activities intended to support its goal of improving student achievement in its annual performance plan. Our previous work has identified the use of strategic and annual plans as a practice that can help enhance and sustain collaboration. Without clear strategies for sustained coordination, Education may be missing key opportunities to leverage and align its resources, activities, and processes to assist states, school districts, and institutions of higher education improve teacher quality.

Education has conducted evaluations for some of its teacher quality programs and has awarded grants to researchers for a variety of research on teacher quality interventions, which are intended to inform policymakers and educators about program operations and which programs or interventions are having an impact. While evaluations have been done or are under way for about two-fifths of these programs, little is known about whether most of the programs are achieving their desired results. Education provides information from evaluations and also from research through the Internet and a system of regional and national providers. These providers also either conduct or synthesize research and provide assistance mainly to states and school districts. These providers coordinate among themselves and with one another in various ways.

State agency officials reported through our surveys that limited resources and incompatible data systems were the greatest challenges to their collaborative efforts to improve teacher quality. State officials reported that data systems could be used to inform teacher quality policy efforts by linking student and teacher data, or linking data from kindergarten through 12th grade and the postsecondary education systems. To help address these challenges, Education provides some financial support and other assistance. For example, one \$65 million program that helps states develop statewide data systems also received another \$250 million in the American Recovery and Reinvestment Act of 2009. Also, the act requires states to report on the progress they are making toward linking statewide data systems that allow matching of individual student achievement to individual teachers. This additional funding could help states defray costs associated with these efforts.

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#### **Abbreviations**

ESEA Elementary and Secondary Education Act of 1965

GPRA Government Performance and Results Act

HEA Higher Education Act

IES Institute of Education Sciences
 IHE Institution of higher education
 K-12 Kindergarten through 12th grade

NCLBA No Child Left Behind Act OIG Office of Inspector General

Recover Act American Recovery and Reinvestment Act of 2009

REL Regional Educational Laboratories SAHE State agency for higher education

SEA State education agency

STEM Science, technology, engineering, and mathematics

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## United States Government Accountability Office Washington, DC 20548

July 6, 2009

The Honorable Rubén Hinojosa Chairman Subcommittee on Higher Education, Lifelong Learning, and Competitiveness Committee on Education and Labor House of Representatives

Dear Mr. Chairman:

Nationwide there are about 3 million teachers employed in approximately 14,000 public school districts with about 89,000 schools. Policymakers, researchers, and educators have focused on improving the quality of our nation's teachers in an attempt to raise the achievement of students in key academic areas, such as reading and mathematics. A variety of approaches have been taken to improve the quality of teachers, including focusing on instructional practices. Among these approaches, improving the qualifications of teachers is a focus of federal policy. Specifically, the No Child Left Behind Act of 2001 (NCLBA), which amended and reauthorized the Elementary and Secondary Education Act of 1965 (ESEA), established federal requirements that all teachers of core academic subjects be "highly qualified." This means teachers must generally have a bachelor's degree, be fully certified, and demonstrate their knowledge of the subjects they teach. According to the U.S. Department of Education (Education), most teachers meet their states' requirements to be considered highly qualified under ESEA. However, the percentage of teachers who are not highly qualified is higher for certain populations of teachers, such as special education teachers and teachers in high-poverty and high-minority schools.1

ESEA as well as several other federal statutes, such as the Higher Education Act and the Education Sciences Reform Act, authorize various grant programs and other forms of assistance, like research, for states,

<sup>&</sup>lt;sup>1</sup>U.S. Department of Education, Office of Policy and Program Studies Services, *State and Local Implementation of the No Child Left Behind Act: Volume VII—Teacher Quality Under NCLB: Final Report* (U.S. Department of Education, 2009). High-poverty and low-poverty schools are respectively those in the top and bottom quartiles when schools in a state are ranked by level of poverty in descending order; most states based level of poverty on the percentage of students eligible for free or reduced lunch in the school.

school districts, and institutions of higher education to help individuals meet the teacher qualification requirements as well as other efforts aimed at improving teacher quality. This funding and assistance are administered by Education, either directly or indirectly through state and local entities.

Student access to high-quality teachers may be affected, in part, by the extent to which the kindergarten through 12th grade (K-12) and higher education systems work together at the federal, state, and local levels. However, it is unclear how conducive the current configuration of entities is to these complementary relationships. Given the importance of teacher quality to student achievement and the role that the federal and state governments play in this area, you asked us to address the following questions: (1) To what extent does Education fund and coordinate teacher quality programs? (2) How does Education target monitoring of its teacher quality program grantees and coordinate these efforts? (3) What evaluation and research does Education conduct on teacher quality, and how does it provide and coordinate research-related assistance to states and school districts? (4) What are the challenges to collaboration within states and how does Education address these challenges?

To conduct our work, we used a variety of methods, including interviews with Education officials, surveys of states and the District of Columbia, and site visits in three states. To learn about the major federal programs supporting teacher quality efforts, we selected programs from the Guide to U.S. Department of Education Programs 2008 and verified that these were the relevant programs with Education officials. For each grant program, we reviewed federal laws, nonregulatory guidance, policies, procedure manuals, and other documentation, and interviewed officials from a range of Education offices overseeing teacher quality programs to determine how they coordinate program efforts as well as how they monitor grantees. We also interviewed officials from a selection of relevant Education-funded research organizations and related assistance providers at the regional and national levels to understand how Education funds and supports efforts to improve teacher quality. To learn about the specific areas of teacher quality that state agencies are focusing on and the challenges to collaboration within their states, we administered two

<sup>&</sup>lt;sup>2</sup>"Collaboration" is a broad term that can include activities that others have variously defined as "cooperation," "coordination," and "integration," and previous GAO work has identified various practices that can enhance collaboration, such as establishing compatible policies and procedures to operate across organizational boundaries. See GAO, Results Oriented Government: Practices that Can Help Enhance and Sustain Collaboration among Federal Agencies, GAO-06-15 (Washington, D.C.: Oct. 21, 2005).

surveys between August and November 2008—one to heads of state educational agencies and another to heads of state agencies for higher education in states and the District of Columbia using self-administered, electronic questionnaires posted on the Internet.<sup>3</sup> We received a 94 percent response rate for the state educational agency survey and a 96 percent response rate for the state agency for higher education survey. We also conducted site visits to three states—Louisiana, New Jersey, and Oregon—that were selected based on their having initiatives that focus on teacher quality, such as coordinating bodies that are intended to bridge the K-12 and higher education systems, <sup>4</sup> and on diversity in terms of geographic location, population, and amount of federal teacher quality program funding. We met with state officials in each state and, to understand the local perspective, we met with officials in at least one school district and two universities in each state. A more detailed explanation of our scope and methodology can be found in appendix I. The surveys and a more complete tabulation of aggregated results can be viewed at GAO-09-594SP.

We conducted our work from February 2008 through July 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### Background

Research points to teacher quality as an important school-level factor influencing student learning and ultimately preparing children for their futures as citizens and workers in a knowledge-based economy. However, efforts to improve the quality of teachers face several challenges. One

<sup>&</sup>lt;sup>3</sup>Because of differences in higher education governance among states, state agencies for higher education include offices, commissions, boards, committees, departments, or organizations with governing authority over higher education in the state.

<sup>&</sup>lt;sup>4</sup>Coordinating bodies work to integrate a student's education from kindergarten through a 4-year college degree by coordinating statewide education initiatives and reforms. Examples of such coordinating bodies include what are commonly referred to as P-16/20 councils, or prekindergarten through college/master's, though some states refer to them differently (e.g., commission, roundtable, committee, initiative, etc.). On the basis of our review of the literature, we found that a large number of these bodies address some aspect of teacher quality.

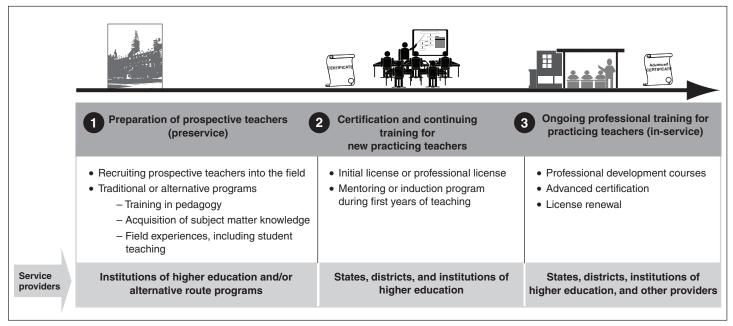
challenge is a lack of consensus about what makes teachers effective. Even though research demonstrates that some teachers affect their students' academic growth more than other teachers, research has not categorically identified the specific indicators of teacher quality, such as the characteristics, classroom practices, and qualifications that are most likely to improve student learning.<sup>5</sup> Some researchers have shown that with the exception of a few factors, they cannot state, with a strong degree of certainty and consistency, which aspects of teacher quality matter most for student learning. Another challenge is the high attrition rates and shortages of teachers, especially in high-poverty areas. For example, almost half of teachers leave the profession in the first 5 years of teaching, and there is an anticipated surge in retirements of teachers from the baby boom generation. Moreover, research has shown that many students, especially those in high-poverty and high-minority schools, have teachers who have limited knowledge of the subjects they teach. In addition, there are concerns that graduates of teacher education programs are inadequately prepared to teach to high standards and that once teachers are in the classroom, training to help remedy this situation is sporadic and uncoordinated.

While many teachers follow a traditional career path of preparation followed by ongoing professional development, there are also alternative career paths. Many prospective teachers receive their undergraduate degrees through teacher preparation programs administered by institutions of higher education. Traditional teaching preparation programs typically include field-based experience, courses in specific subject matter, and strategies of instruction or pedagogy. Within institutions of higher education, these prospective teachers generally learn subject matter content in schools of arts and sciences and learn pedagogy in schools of education. Under this traditional approach, prospective teachers must complete all their certification requirements before beginning to teach. Teachers may also gain certification through alternative routes designed for prospective teachers who have been out of the job market (e.g., stay-at-home mothers) or have a career in a different field and who hold at least an undergraduate degree. Alternative route candidates receive training needed to meet the certification requirements of other teachers while teaching in the classroom. Generally, after

<sup>&</sup>lt;sup>5</sup>Laura Goe and Leslie M. Stickler, *Teacher Quality and Student Achievement: Making the Most of Recent Research* (Washington, D.C.: National Comprehensive Center for Teacher Quality, 2008).

completing a traditional or alternative teacher preparation program, teachers in the classroom participate in ongoing training or professional development. Training for new and veteran teachers may differ, with some states and school districts providing mentoring or induction programs for new teachers. Induction for new teachers may include district- or school-level orientation sessions, special in-service training, mentoring by an experienced teacher, and classroom observation. See figure 1 for an illustration of the various steps in the career path for teachers.

Figure 1: Career Path of Teachers



Source: GAO analysis, Art Explosion (images).

Entities at the local, state, and federal levels each play a role in the preparation and ongoing professional development training of teachers. The roles and responsibilities of these entities sometimes overlap (see table 1). For example, about half of alternative teacher certification programs are administered by institutions of higher education, and school districts, state educational agencies (SEA), and other entities can also offer alternative routes to certification.

Table 1: Roles and Responsibilities of State and Local Education Institutions Responsible entity for each activity State educational State agency for Institution of School district Education activity agency higher education<sup>b</sup> higher education School Legal and administrative responsibility for state education system Recruitment Hiring Compensation Retention Certification Classroom teacher training Teacher assignments Teacher evaluations Alternative routes to certification Traditional routes to certification • • Mentoring or induction Academic program approval at public institutions of higher education

Sources: Education, Congressional Research Service, and state education sources.

"The roles and responsibilities of each entity may vary from state to state depending on the school governance system; for example, some states delegate more control to the local level than others do.

<sup>b</sup>State agencies for higher education have varied levels of formal authority, such as authority for academic programs and budget, over public institutions of higher education.

State agencies for higher education (SAHE)—also referred to as the board of regents or the department, commission, or council for postsecondary or higher education—can also play a role in teacher quality. These agencies oversee state institutions of higher education where most teachers are trained. SAHEs generally approve of new academic programs at institutions of higher education and some may have budgetary authority.

School districts, institutions of higher education, and states collect and report data, which include tracking teachers' professional development hours, maintaining records of certified teachers, tracking student test scores and graduation rates, as well as producing teacher supply and demand studies. These and other data are intended to inform efforts such as improving schools, reducing student achievement gaps, and tracking the highly qualified status of all teachers. To make better use of these data,

many states are putting in place longitudinal data systems that link data, such as student test scores and enrollment patterns, of individuals or groups of students over time. In addition, many states are using or have interest in using growth models—a term that refers to a variety of methods for tracking changes in a variable over time—to measure progress for schools and for student groups or individual students. For example, one type of model (known as a value-added model) measures students' gains from previous test scores. GAO has reported that states with a longitudinal data system will be better positioned to implement a growth model than they would have been without it.

The federal government plays an important role in education. Education's mission is, among other things, to ensure equal access to education and promote educational excellence throughout the nation by supporting state and local educational improvement efforts, as well as improving coordination and management of federal education programs. For example, Education provides financial assistance through various formula and competitive grant programs. Formula grants allocate federal funds to states or school districts in accordance with a distribution formula prescribed by statute or administrative regulation. Competitive grants are awarded through a competitive process, whereby grant applications are reviewed according to published selection criteria and legislative and regulatory requirements established for the program. Education has discretion to determine which applications best address the program requirements and are thus worthy of funding. In addition, Education monitors and conducts activities related to the particular program and grantees receiving these funds. Education has eight principal offices responsible for specific program areas. These principal offices award and manage all grant programs for that program area. In addition, each principal office contains several program offices that administer the dayto-day activities of one or more grant programs, such as those authorized in Title I of ESEA (see table 2). Thirty-two program offices manage about 150 grant programs departmentwide.

<sup>&</sup>lt;sup>6</sup>GAO, No Child Left Behind: States Face Challenges in Measuring Academic Growth that Education's Initiatives May Help Address, GAO-06-661 (Washington, D.C.: July 17, 2006).

Principal office	Program offices
Office of English Language Acquisition	Continuation and Professional Grants Division
Institute of Education Sciences	National Center for Education Research
	National Center for Special Education Research
	National Center for Education Statistics
Office of Elementary and Secondary Education	Academic Improvement and Teacher Quality Programs
	School Support and Technology Programs
	Impact Aid Programs
	Student Achievement and School Accountability
	Office of Migrant Education
	Office of Indian Education
Office of Safe and Drug Free Schools	Center for School Preparedness
	Drug-Violence Prevention-State Programs
	Drug-Violence Prevention-National Programs
	Health, Mental Health, Environmental Health and Physical Education
	Character and Civic Education
	Policy and Cross-Cutting Programs
Office of Innovation and Improvement	Improvement Programs
	Fund for the Improvement in Education
	Parental Options and Information
	Teacher Quality Programs
	Technology in Education Programs
Office of Postsecondary Education	Higher Education Preparation and Support Service
	Institutional Development and Undergraduate Education Service
	International Education Programs Service
	Teacher and Student Development Programs Service
	Fund for the Improvement of Postsecondary Education
Office of Special Education and Rehabilitative Services	National Institute on Disability and Rehabilitation Research
	Rehabilitation Services Administration
	Office of Special Education Programs
Office of Vocational and Adult Education	Adult Education and Literacy Division
	Academic and Technical Education Division
	Policy Research and Evaluation Staff

Source: Education.

A goal of ESEA is improving student achievement so that all students will be proficient in math and reading by 2014. To accomplish this goal,

Education has established a series of strategic objectives that include improving teacher quality. To assess its progress in meeting this objective, Education has established performance measures in its strategic plan. These measures all relate to having highly qualified teachers in core academic classes at elementary and secondary schools, including low- and high-poverty schools. These measures are also included in Education's annual performance plan. These plans are intended to provide a direct linkage between an agency's longer-term goals (as defined in the strategic plan) and what its managers and staff are doing on a day-to-day basis.

A number of federal laws govern teacher quality. With the 2001 reauthorization of ESEA, which requires public school teachers to be highly qualified in every core academic subject they teach, the federal government established specific criteria for teachers.8 Title I of ESEA requires every state and school district receiving Title I funds to develop and submit a plan for how it intends to meet the teacher qualification requirements, which is part of a broader plan outlining how it will meet other requirements of the act such as those requiring challenging academic content and student achievement standards. In addition, the state plan must establish each district's and school's annual measurable objectives for increasing the number of teachers meeting qualification requirements and receiving high-quality professional development with the goal of ensuring that all teachers met the requirements by the end of the 2005-2006 school year. While there is evidence that most teachers meet their states' requirements to be considered highly qualified, schools and school districts with high student poverty rates have generally had particular difficulty attracting and retaining highly qualified teachers; as a result, their students are often assigned to teachers with less experience, education, and skills than those who teach other students.

As GAO has reported, Title II of ESEA provides states and districts with funding to help them implement various initiatives for raising teacher and

<sup>&</sup>lt;sup>7</sup>Under the Government Performance and Results Act (Pub. L. No. 103-62 (1993)), federal agencies are required to develop strategic plans, performance plans, and performance reports. The plans are to include long-term and annual goals, respectively, along with the means for accomplishing the goals. The performance report is to include the extent to which the goals have been achieved.

<sup>&</sup>lt;sup>8</sup>Core subjects include English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

principal qualifications. In addition, other federal laws that authorize programs intended to influence teacher quality include the following:

- The Individuals with Disabilities Education Act is the primary federal law addressing the educational needs of students with disabilities. The act, as amended, cross-references the ESEA "highly qualified" teacher definition, but unlike ESEA, this act requires that all special education teachers—not just those teaching core subjects—must meet certain requirements.
- The Higher Education Act (HEA), as amended by the Higher Education Opportunity Act, authorizes most of Education's programs targeted to postsecondary education. Specifically, the act established discretionary grants to prepare prospective teachers and accountability requirements for teacher preparation programs and states. <sup>10</sup> For example, it requires annual reporting on the quality of traditional and alternative teacher preparation programs, including the efforts of institutions of higher education to increase the number of prospective teachers teaching in high-need areas and being responsive to the needs of school districts. <sup>11</sup>
- The Education Sciences Reform Act is intended to strengthen the principal
  education research, statistics, and evaluation activities of Education.
  Within Education, it established the Institute of Education Sciences, which
  has a mission to provide reliable information about the condition and
  progress of education in the United States, educational practices that
  support learning and improve achievement, and the effectiveness of
  federal and other education programs.

<sup>&</sup>lt;sup>9</sup>GAO, No Child Left Behind Act: Improved Accessibility to Education's Information Could Help States Further Implement Teacher Qualification Requirements, GAO-06-25 (Washington, D.C.: Nov. 21, 2005).

<sup>&</sup>lt;sup>10</sup>GAO has reported that in general, HEA provisions tend to focus on the preparation of prospective teachers, while ESEA provisions tend to focus on training for teachers already in the classroom and are funded at a higher level than HEA programs. See GAO, *Teacher Quality: Approaches, Implementation, and Evaluations of Key Federal Efforts*, GAO-07-861T (Washington, D.C.: May 17, 2007).

<sup>&</sup>lt;sup>11</sup>Title II, section 205 of the HEA, as amended by the Higher Education Opportunity Act, Pub. L. No. 110-315, requires the annual preparation and submission of reports on teacher preparation and qualifications from institutions of higher education that conduct a traditional teacher preparation program or alternative route to state certification or licensure. Section 206 requires these institutions of higher education to set annual quantifiable goals for increasing the number of prospective teachers trained in teacher shortage areas and to provide specific assurances to the Secretary of Education that include being responsive to the needs of school districts in which the institution's graduates are likely to teach.

Education Funds a
Wide Array of
Programs Intended to
Improve Teacher
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Taken Some Steps to
Coordinate These
Programs on
Occasion

Over a third of the programs that Education administers support efforts to improve teacher quality. Many of these statutorily authorized programs supporting teacher quality are intended to specifically support teacher quality activities, such as professional development training for teachers already serving in the classroom; the remaining programs support teacher quality activities but do so in pursuit of other program purposes or goals. Education officials said they have taken some steps to share information among the multiple offices administering these programs and have established and completed broader collaborative efforts on occasion.

Education Administers 56 Programs Supporting Efforts to Improve Teacher Quality, Especially for Local Efforts to Train Existing Teachers

In fiscal year 2009, Education administered 56 statutorily authorized programs that support efforts to improve teacher quality. Of these 56 programs, Education allocated about \$4.1 billion to 23 programs that have, as a specific purpose, improving teacher quality, including increasing the number of highly qualified teachers in the classroom. The remaining 33 programs do not have the primary purpose of improving teacher quality and focus on other program goals or purposes, such as increasing student access to institutions of higher education. Nevertheless, these programs allow or require some portion of program funding to be used for teacher quality activities. Education officials said that they do not collect specific data on the amount of funding going to teacher quality activities for most of these programs. Appendixes II and III provide information about each of the programs.

Twenty-three Programs Specifically Focus on Teacher Quality Of the 23 programs that specifically focus on improving teacher quality, a majority of the funds (approximately \$3 billion) are concentrated in one program, the Improving Teacher Quality State Grant program. This formula grant is allocated primarily to school districts and may be used for a wide variety of activities to improve teacher quality, such as providing funding for teacher preparation, training for teachers already in the classroom, and recruitment. In addition, states may retain approximately 5 percent of these program funds to support teacher quality efforts—

<sup>&</sup>lt;sup>12</sup>According to Education, during the 2007-2008 school year, districts used most of the funding for hiring highly qualified teachers to reduce classroom size and professional development training for teachers already teaching in the classroom.

generally split evenly between state educational agencies (to support state-level teacher initiatives) and state agencies for higher education (to support partnerships between institutions of higher education and highneed school districts that work to provide training to teachers already teaching in the classroom).

As shown in figure 2, 16 of the 23 programs specifically focused on teacher quality each received less than \$50 million. Nearly all of these programs are competitive grants, and each has its own policies, applications, award competitions, reporting requirements, and, in some cases, federal evaluations. Furthermore, these programs are focused to support specific activities, such as improving teachers' knowledge and understanding of American history, recruiting midcareer professionals to teaching, or training existing teachers in music, dance, and drama.

Figure 2: Funding Levels of the 23 Programs Specifically Focused on Teacher Quality

Fiscal year 2009 program funding levels (Dollars in millions) 2,948 3,000 2,500 2,000 1,500 1,000 868 500 262 60 0 Over \$500 Between \$15 million Between \$51 million and Less than million (1) \$500 million (6) and \$50 million (7) **\$15 million** (9) Enhancing Education Teacher Quality Troops-to-Teachers Improving Teacher Quality Through Technology Partnership Grant Ready-to-Teach State Grants Mathematics and Special Education-Advanced Certification or Science Partnership State Personnel **Advanced Credentialing Development Grant** Teaching American Indian Education Professional English Language History Acquisition National Development Early Reading First Professional Professional Professional Development for Development Teacher Incentive Fund Arts Educators Transition to Teaching Special Education-Territories and Freely Associated Personnel Development States Education Striving Readers to Improve Services and Academies for American Results for Children with National Writing Project History and Civics Disabilities School Leadership Teachers for Competitive Program Tomorrow Program-Baccalaureate STEM and Foreign Language Teacher Training Teachers for Competitive Tomorrow Program-Masters STEM and Foreign Language Training

Sources: GAO analysis of documents obtained from and discussions with Education.

Note: Education's fiscal year 2010 budget request proposes eliminating 2 of these 23 programs: the Ready-to-Teach program and the Academies for American History and Civics program. In fiscal year 2009, both programs are funded at less than \$15 million. Education proposes eliminating the Ready-to-Teach program because it limits eligibility only to telecommunications providers and not additional

professional development providers that utilize other delivery methods, such as the Internet and other digital media platforms. Education proposes eliminating the American History and Civics program because the program is considered too small to leverage funding effectively and Education has minimal evidence that the program has a positive impact on participating students and teachers. Further, Education states that school districts and other entities that wish to implement history and civics training programs can use funds provided under other federal programs, such as the Teaching American History program.

As illustrated in table 3, most of the 23 programs allow funds to be used for professional development training for teachers already in the classroom, but many allow grantees to use funding for a range of activities throughout a teacher's career path, such as teacher preparation, teacher recruitment or retention, certification or licensure, and induction or mentoring.

Table 3: Activities Funded by Programs Specifically Focused on Teacher Quality

Program	Ago.	To nominon or rest	Corresponding	Ind. Ind.	Prof. Or me.	Con Con de Contra de Contr
Improving Teacher Quality State Grants	•	•	•	•	•	•
Mathematics and Science Partnerships	•				•	
Enhancing Education Through Technology Program					•	
National Writing Project					•	
Advanced Certification or Advanced Credentialing	•		•			
Troops-to-Teachers	•	•	•			
Early Reading First					•	
Striving Readers					•	
Teacher Incentive Fund						•
Territories and Freely Associated States Education Grant Program					•	
Indian Education Professional Development Grants <sup>c</sup>	•	•	•	•	•	
School Leadership Program	•			•	•	•
Teaching American History					•	
Transition to Teaching Program	•	•	•	•		
Professional Development for Arts Educators					•	
Ready-to-Teach Grant Program					•	
Academies for American History and Civics					•	
English Language Acquisition Professional Development Program			•		•	
Special Education–Personnel Development to Improve Services and Results for Children with Disabilities	•	•		•	•	
Special Education-State Personnel Development Grant Program		•			•	
Teacher Quality Partnership Grants	•	•		•	•	
Teachers for a Competitive Tomorrow Program: Masters STEM and Foreign Language Teacher Training		•			•	
Teachers for a Competitive Tomorrow Program: Baccalaureate STEM and Foreign Language Teacher Training		•	•	•	•	

Source: Analysis of statutes authorizing these programs and Education documents.

<sup>&</sup>lt;sup>a</sup>The category "teacher preparation" may include teaching residency programs. A teaching residency program for prospective teachers is a school-based teacher preparation program for recent college graduates and midcareer professional s who are not teaching. These prospective teachers teach alongside a mentor teacher and receive concurrent instruction in the teaching of a content area in which the teacher will become certified.

blinduction for new teachers might include district- or school-level orientation sessions, special inservice training, mentoring by an experienced teacher, classroom observation, and formative assessment.

<sup>c</sup>Although one of the purposes stated in the statute authorizing the Indian Education Professional Development Grants program is to provide professional development, the focus of the fiscal year 2009 grant competition is on preservice or teacher preparation.

Thirty-three Programs Allow or Require Portions of Funds to Be Used for Teacher Quality Activities but Have Other Program Goals or Purposes

The remaining 33 programs allow or require portions of their funds to be used for teacher quality activities, but their primary focus is not on improving the quality of teachers. Education does not routinely track spending on teacher quality activities for nearly all of these programs. 13 Specifically, only 3 of these 33 programs have collected information about the portion of funds spent on teacher-related activities. For example, according to Education, ESEA Title I, Part A, which provides support to programs designed to address the needs of educationally disadvantaged children, also provided approximately \$1.9 billion (or about 8 percent of Title I, Part A funds) for spending on training for existing teachers in fiscal year 2009. 4 According to Education, between fiscal years 2000 and 2008, the Fund for the Improvement of Postsecondary Education-Comprehensive Program—a program supporting innovative reform projects for improving the quality of postsecondary education and increasing student access—awarded about \$82 million in grants for teacher quality-related activities. For example, in fiscal year 2007 Western Oregon University received a grant totaling \$685,685 to support a statewide collaboration of institutions of higher education to build the capacity of elementary grades math and science instruction. Education officials said the department does not collect data on expenditures for most other programs in this category.

In addition to the funds provided through the regular fiscal year 2009 appropriations for Education, the American Recovery and Reinvestment Act of 2009 (the Recovery Act) provides additional funds to several of these 56 teacher quality programs for fiscal year 2009. For example, \$200 million in Recovery Act funds was provided to the Teacher Incentive

<sup>&</sup>lt;sup>13</sup>These 33 programs have other primary goals or purposes, such as providing assistance to rural school districts to help them meet state academic goals, supporting career and technical skills of secondary or postsecondary students, or paying the salaries of teachers serving certain student populations.

 $<sup>^{14}</sup>$ This total includes an estimated \$1.15 billion from the fiscal year 2009 appropriation and about \$800 million from the American Recovery and Reinvestment Act of 2009 (Pub. L. No. 111-5).

Fund, which is a competitive grant program intended to help states and school districts design performance-based teacher compensation systems that incorporate student performance as a factor in assessing the effectiveness of practicing teachers. <sup>15</sup> Moreover, the Recovery Act requires that the Secretary of Education set aside \$5 billion for State Incentive Grants, referred to by Education as the Reach for the Top program, and the establishment of an Innovation Fund. Education is providing most of this \$5 billion of funding to states for efforts that could include making improvements in evaluating teacher effectiveness as well as ensuring that all students have access to highly qualified and effective teachers. Appendix II contains information on the 23 programs receiving Recovery Act funds.

Education Has Taken Some Steps to Coordinate These Programs and Completed Broader Collaborative Efforts on Occasion

According to Education officials, the multiple offices administering the 23 programs specifically focused on teacher quality coordinate with one another, and on occasion the department has established and completed broader collaborative efforts. Federal support for teacher quality is dispersed across a wide array of grant programs in Education, with nine program offices responsible for administering them (see table 4). Education's program office officials said their offices take some steps to coordinate with one another, such as participating in informal discussions to share ideas, attending and presenting at one another's conferences, and reviewing one another's draft grant announcements. In addition, officials said that they have formed task groups to address broader issues and phase them out once their tasks are complete. For example, in early 2003, Education formed a teacher quality policy group under the auspices of the Office of the Undersecretary of Education to coordinate multiple offices' efforts related to ESEA implementation of the highly qualified teacher requirements. Nevertheless, in the past, GAO's and Education's Inspector General's findings have shown that Education's programs could better plan and coordinate to, among other things, leverage expertise and resources as well as guide consideration of different options for addressing potential problems among the current configuration of

<sup>&</sup>lt;sup>15</sup>Other teacher quality programs that received Recovery Act funds and that are specifically focused on teacher quality include the Enhancing Education Through Technology Program and the Teacher Quality Partnership Grant Program.

programs.<sup>16</sup> While Education's collaborative efforts have occurred intermittently, several Education officials told us that they see value in routinely working together to exchange information across the program offices. Officials we spoke with noted that this type of sustained coordination required support and attention from senior departmental officials, such as formalizing the responsibilities and roles of a working group and its members. Given that the Recovery Act provides funds to improve teacher effectiveness, Education officials said that this presents an opportunity to coordinate Education's resources to improve teacher quality. Specifically, Education officials said that they recently have initiated coordination efforts to address the Recovery Act requirements related to teachers by forming a team made up of representatives from several program offices and led by the Secretary's advisors.

Principal offices <sup>a</sup>	Program offices	Teacher quality programs			
Office of Elementary and Secondary Education	School Support and Technology Programs	<ul> <li>Territories and Freely Associated States Education Grant Program</li> </ul>			
Academic Improvement and Teacher Quality		<ul> <li>Enhancing Education Through Technology Program</li> </ul>			
	Academic Improvement and	Striving Readers			
	Teacher Quality	<ul> <li>Improving Teacher Quality State Grants</li> </ul>			
		<ul> <li>Mathematics and Science Partnerships</li> </ul>			
		Teacher Incentive Fund			
		Early Reading First			
	Office of Indian Education	<ul> <li>Indian Education Professional Development Grants</li> </ul>			

<sup>&</sup>lt;sup>16</sup>GAO, Troops to Teachers: Program Brings More Men and Minorities into Teaching Workforce, but Education Could Improve Management to Enhance Results, GAO-06-265 (Washington, D.C.: Mar. 1, 2006); Special Education: Additional Assistance and Better Coordination Needed among Education Offices to Help States Meet the NCLBA Teacher Requirements, GAO-04-659 (Washington, D.C.: July 15, 2004); and U.S. Department of Education, Office of the Inspector General, Overlapping Services in the Department of Education's Office of Postsecondary Education Programs, Audit Report No. ED-OIG/X07F0002 (Washington, D.C.: Feb. 27, 2006).

Principal offices <sup>a</sup>	Program offices	Teacher quality programs
Office of Innovation and	Teacher Quality Programs	Advanced Certification or Advanced Credentialing
Improvement		School Leadership Program
		Teaching American History
		National Writing Project
		Transition to Teaching Program
		<ul> <li>Troops-to-Teachers</li> </ul>
		<ul> <li>Academies for American History and Civics</li> </ul>
		<ul> <li>Teacher Quality Partnership Grants<sup>b</sup></li> </ul>
	Improvement Programs	Professional Development for Arts Educators
	Technology in Education Programs	Ready-to-Teach Grant Program
Office of Postsecondary Education	Teacher and Student Development Programs Service	Teachers for a Competitive Tomorrow Program:     Baccalaureate STEM and Foreign Language Teacher Training
		<ul> <li>Teachers for a Competitive Tomorrow Program: Masters STEM and Foreign Language Teacher Training</li> </ul>
Office of English Language Acquisition	Continuation and Professional Grants Division	English Language Acquisition Professional Development Program
Office of Special Education and Rehabilitative Services	Office of Special Education Programs	Special Education-State Personnel Development Grant Program
		<ul> <li>Special Education-Personnel Development to Improve Services and Results for Children with Disabilities</li> </ul>

Source: GAO analysis of Education documentation.

Education officials said that although several teacher quality programs support similar activities, differing statutory requirements can hamper coordination among the programs. Specifically, some officials said that statutory barriers, such as programs with differing definitions for similar populations of grantees, create an impediment to coordination. For example, Education officials told us that the Mathematics and Science Partnerships grant and the Improving Teacher Quality State (Title II, Part A) Grant to institutions of higher education both require partnerships that include a "high-need" school district. However, while the Title II, Part A program's authorizing legislation contains a specific statutory definition of a high-need school district, the Mathematics and Science Partnerships program allows states to define this term. This may hinder states' ability to coordinate resources among these initiatives because in most states far fewer school districts meet the Title II, Part A definition than meet the

<sup>&</sup>lt;sup>a</sup>A principal office is an organizational unit of Education responsible for administering grant programs. A program office is a subunit of a principal office that conducts the daily work of administering grant programs.

<sup>&</sup>lt;sup>b</sup>As of fiscal year 2009, the Teacher Quality Partnership Program was moved from the Office of Postsecondary Education to the Office of Innovation and Improvement. However, the Office of Postsecondary Education will continue overseeing all grants awarded prior to fiscal year 2009.

definition that the state develops for the Mathematics and Science Partnerships program.

Education has not described in its annual performance plan how it will coordinate various crosscutting teacher quality activities supporting its goal of improving student achievement. Our previous work has identified using strategic and annual plans as a practice that can help enhance and sustain collaboration. 17 As indicated in Education's strategic plan required by the Government Performance and Results Act (GPRA), one of Education's primary goals is improving student achievement so that all students will be proficient in math and reading by 2014. To accomplish this goal, it has established improving teacher quality as a strategic objective. However, the annual performance plan neither describes how Education coordinates or will coordinate its teacher quality efforts nor identifies barriers to such coordination. GPRA offers a structured means for identifying multiple programs—within and outside the agency—that are to contribute to the same or similar goals and for describing coordination efforts to ensure that goals are consistent and program efforts are mutually reinforcing. As GAO has previously reported, agencies can strengthen their commitment to work collaboratively by articulating their efforts in formal documents, such as in a planning document. 18 We have also reported that uncoordinated program efforts can waste scarce funds, confuse and frustrate program customers, and limit the overall effectiveness of the federal effort. 19

<sup>&</sup>lt;sup>17</sup>GAO, Results Oriented Government: Practices that Can Help Enhance and Sustain Collaboration among Federal Agencies, GAO-06-15 (Washington, D.C.: Oct. 21, 2005).

<sup>&</sup>lt;sup>18</sup>GAO-06-15.

<sup>&</sup>lt;sup>19</sup>GAO, Managing for Results: Building on Agencies' Strategic Plans to Improve Federal Management, GAO/T-GGD/AIMD-98-29 (Washington, D.C.: Oct. 30, 1997).

Offices Administering
Education's Teacher
Improvement
Programs Use a
Variety of Methods to
Target Monitoring,
and Education Is
Beginning to
Implement
Mechanisms Intended
to Improve and
Coordinate These
Efforts

Officials we spoke with in four principal offices overseeing some of the teacher quality improvement programs said that they use a variety of methods and sources of information throughout the life of the grant process to gain insight into the performance of grantees and to target monitoring assistance accordingly. To help ensure grantee accountability for using teacher quality program resources, monitoring begins with preaward planning, training, and guidance to potential grantees and continues through all phases of the award and postaward processes (i.e., a so-called cradle-to-grave approach). For example, for the Teaching American History program, program officials said they provide guidance to applicants and grantees about how to develop performance measures related to program goals so that Education can obtain credible information on funded project outcomes from grantees. For competitive grant programs, officials in the relevant principal offices we spoke with said they review grantees' annual performance reports to assess whether grantees' activities are consistent with planned objectives, with Office of Innovation and Improvement officials saying they use a standard form to guide their review.

Furthermore, staff from the Office of Elementary and Secondary Education visit each state at least once every 3 years to monitor state efforts to meet the teacher qualification requirements and states' administration of ESEA Title II, Part A Improving Teacher Quality State Grants. In 2008, the Office of Elementary and Secondary Education conducted monitoring visits to 18 states and Puerto Rico, including 2 of our 3 site visit states and provided written monitoring reports on Education's Web site about these states' implementation of the ESEA teacher qualification requirements. For example, Education found instances in 2 of our site visit states of grants being awarded by state agencies for higher education that included an ineligible partnership. In 2009 Education officials said they plan to conduct monitoring visits to 15 other states through June as part of the department's goal to monitor each state every 3 years. In addition, Office of Special Education and Rehabilitative Services officials said they use the results of telephone conversations with grantees, technical assistance meetings, and conferences to understand grantee activities.

In addition to these methods of targeting teacher quality program grantees, senior Education officials said that Education is beginning to implement risk management mechanisms to help program offices, including those administering teacher quality programs, better identify and target grantees not in compliance with grant requirements or not meeting performance goals. Senior Education officials said that applying risk management in

Education is a relatively new endeavor and that responsibility rests with individual program offices for identifying risks confronting each program and for using risk indicators. These officials said Education's risk management approaches will continue to evolve as processes mature and lessons are learned.

Given that this endeavor is relatively new and that principal and program offices tailor their monitoring to the particular teacher quality program or grantee involved, we found that some of the program offices are further along in developing risk indicators than others. For example, the Office of Postsecondary Education has developed an electronic grants monitoring system using risk-based criteria for its competitive grants. Officials we spoke with in some of the other program offices that administer teacher quality programs had not developed formal risk-based criteria or electronic systems; however, as described previously, they have a means for identifying and targeting grantees that may be at risk of noncompliance with grant requirements or not meeting performance goals.

Education is beginning to implement mechanisms intended to enhance as well as coordinate these efforts, such as sharing information about grantees. To coordinate a departmentwide risk-based management strategy, as well as assist program offices with their monitoring efforts, Education created the Risk Management Service. This office provides services to program offices, such as responding to their inquiries about policy interpretations and monitoring grants. Some program office officials we spoke with said that the Risk Management Service alerts them about grantees that are having problems managing other Education grants.

As part of this effort, senior Education officials described plans for standardizing departmentwide systems for sharing information about grantees' management of federal funds and performance. For example, Education is developing an automated process for enhancing its review of the findings of financial audits, called single audits, within their programs. <sup>20</sup> As has been done in the past, this information is shared with teacher quality program managers and others in the department. Education officials we spoke with who are in several of the offices overseeing teacher quality programs said they review single-audit results,

<sup>&</sup>lt;sup>20</sup>All nonfederal entities that expend \$500,000 or more in federal awards in a year are required to obtain an annual audit in accordance with the Single Audit Act, as amended, and Office of Management and Budget Circular A-133, "Audits of States, Local Governments and Non-Profit Organizations."

as required, to determine whether entities receiving an Education grant may have compliance or financial management issues. In addition, officials also said that Education is in the process of developing a departmentwide electronic tool to help program offices improve efforts to quantify, evaluate, and report on grantee risk.

Education Conducts a Variety of Teacher Quality Improvement Studies and Provides Assistance to States and Districts through Regional and National Service Providers, Which Coordinate in Various Ways In addition to providing grants for teacher quality, Education has conducted evaluations for some of its 23 teacher quality programs, although little is known about the effectiveness of these programs. Moreover, Education awards grants to researchers for original research on teacher quality programs and interventions. Information from the evaluation and research is provided mainly through various vehicles on the Internet, and Education directs research and assistance to states and school districts through a system of regional and national providers. Education officials reported that these regional and national providers coordinate to provide this assistance to states and school districts.

Education Conducts a Variety of Evaluations of Program Operations and Their Outcomes, but Evaluations Have Been Done or Are Under Way for about Two-fifths of the Teacher Quality Programs

Education conducts various types of evaluations, such as process or implementation, outcome, and impact, which are intended to inform policymakers, program managers, and educators about program operations, how well programs are working, and which programs or interventions are having the greatest impact.<sup>21</sup> Officials said that these evaluations are done in response to congressional mandates, requests from Education's program offices or management, or proposals developed by the Institute of Education Sciences.

<sup>&</sup>lt;sup>21</sup>Process studies are conducted to evaluate the extent to which a program is operating as it was intended. These studies typically use methodologies such as case studies and surveys to assess whether program activities conform to statutory and regulatory requirements, program design, and professional standards or customer expectations. Outcome evaluations assess the extent to which a program achieves its outcome-oriented objectives, but may also assess program processes to understand how outcomes are produced. Impact evaluations use scientific research methods to assess the net effect of a program by comparing program outcomes with an estimate of what would have happened in the absence of the program.

While evaluations have been done or are under way for about two-fifths of the teacher quality programs, little is known about the extent to which most programs are achieving their desired results. Among the 23 programs focusing specifically on teacher quality, Education reported that it has awarded contracts, totaling about \$36.5 million, to evaluate 9 federal programs, of which 6 have been completed (see table 5). Three of the completed evaluations—those for the Early Reading First program, Teacher Quality Partnership Grants, and one of two evaluations of the Mathematics and Science Partnerships program—provide information about how a program focused on teacher quality is directly affecting student achievement or how program outcomes could be indirectly affecting student achievement through their effect on teacher quality. For example, the impact evaluation of the Early Reading First program found that providing scientifically based materials and professional development to teachers had a statistically significant impact on children's ability to recognize letters of the alphabet and to associate letters with their sounds, but it did not have a statistically discernable impact on other aspects of children's reading or listening skills.<sup>22</sup> The outcome evaluation of the Teacher Quality Partnership Grants found that funded partnerships that included colleges of education, schools of arts and sciences, and school districts led to changes in teacher preparation programs and the development of professional development programs for veteran teachers.<sup>23</sup> The three remaining completed evaluations, which include a second evaluation for the Mathematics and Science Partnerships program, are process evaluations that provide information about program operations, but they do not directly address how the program is affecting student achievement through improved teacher quality.

The three evaluations under way are impact or outcome evaluations. Education officials said that for the remaining 14 programs that do not have an evaluation under way, evaluations are not planned over the next 3 years. Of these 14 programs, 2 were initially funded in fiscal year 2008 and another 1 in 2005, but the other 11 have been operating for at least 7 years and have never been evaluated.

<sup>&</sup>lt;sup>22</sup>U.S. Department of Education, Institute of Education Sciences, *National Evaluation of Early Reading First, Final Report to Congress* (Washington, D.C.: May 2007).

<sup>&</sup>lt;sup>23</sup>U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Partnerships for Reform: Changing Teacher Preparation Through the Title II HEA Partnership Program: Final Report (Washington, D.C.: May 2006).

According to Education officials, some programs may be difficult to evaluate. In some cases federal funds are combined with state and local funds, such as under the Improving Teacher Quality State Grants (Title II, Part A) program, making it difficult to isolate the impact of federal funds. While the Improving Teacher Quality State Grants program has not been evaluated, Education has examined the implementation of teacher quality provisions in the ESEA, primarily those related to the teacher qualification requirements. Moreover, Education officials said that several of the teacher quality programs are small in terms of their funding levels and as a result, have few program-associated funds for evaluation. However, as we have reported in the past, evaluations can be designed to consider the size of the program and the costs associated with measuring outcomes and collecting data.<sup>24</sup>

Table 5: Evaluations of the 23 Programs Specifically Focused on Teacher Quality			
Programs that have a completed evaluation	Focus of evaluation		
Teaching American History <sup>a</sup>	To identify (1) the types of activities that grantees implemented; (2) the content of the activities, including specific subjects and areas of American history on which projects focused; and (3) the characteristics and qualifications of teachers participating in the activities for the first 2 years of the program.		
Transition to Teaching <sup>b</sup>	Interim report examines whether grantees are (1) increasing the pool of highly qualified teachers by recruiting nontraditional candidates into teaching; (2) bringing increased flexibility to the teacher preparation system by encouraging the creation and expansion of alternative routes or pathways to teacher certification and lowering barriers of time and cost of preparations while raising standards and program rigor; and (3) improving the retention rate of new teachers by supporting mentoring and induction programs, including a 3-year commitment to high-need schools in high-need districts.		
Teacher Quality Partnership Grants	To determine if partnerships encouraged colleges and universities to (1) partner with and address the teacher preparation needs of high-need districts, (2) implement activities to improve the academic content knowledge of new or veteran teachers, (3) change student internship component associated with a partnership effort to improve teacher preparation, and (4) institute accountability for teacher preparation programs.		
Enhancing Education Through Technology	To determine the role that the Enhancing Education Through Technology program plays, the state priorities and programs that it supports, and the relationship between state programs that the program supports, and the relationship between state educational technology activities and the goals and the purposes of ESEA.		

<sup>&</sup>lt;sup>24</sup>GAO, Higher Education: Federal Science, Technology, Engineering, and Mathematics Programs and Related Trends, GAO-06-114 (Washington, D.C.: Oct. 12, 2005).

Programs that have a completed evaluation	Focus of evaluation
Early Reading First	To determine the effects of providing preschools with funds to provide teachers with focused professional development and scientifically based methods and materials on children's language development and emergent literacy.
Mathematics and Science Partnerships	This evaluation describes the participants and activities of the Mathematics and Science Partnerships projects for 2003-2004 as they began the initial year of program implementation.
	A second evaluation summarizes information submitted by Mathematics and Science Partnership participants for 2005, which included (1) characteristics of the projects and participants, (2) professional development models and activities, and (3) outcomes of the programs.
Programs currently being evaluated	Focus of evaluation
Striving Readers	To examine the extent that (1) targeted interventions improve reading proficiency among struggling adolescent readers, and (2) schoolwide literacy-throughout-the-curriculum interventions to improve reading proficiency among secondary students.
Special Education-Personnel Development to Improve Services and Results for Children with Disabilities	This evaluation will (1) examine the quality of materials developed and the services provided by national centers with funds provided by the program, and (2) examine the use of the grant funds, qualifications of the faculty hired, and the quality of the study materials created using the funds. Also it will estimate how many new students enrolled and how many completed the course.
Teacher Incentive Fund	To determine the degree of success and challenges to implementing the variety of pay-for-performance systems in the program and, given adequate implementation, any increases in effective principal and teacher recruitment and retention in high-need schools and hard-to-staff subjects.
Programs that have not been evaluated	
English Language Acquisition National Professional Development Project	
Troops-to-Teachers	
Ready-to-Teach	
Territories and Freely Associated States Education Grant Program	
Special Education-State Personnel Development Grant Program	
Teachers for a Competitive Tomorrow: Baccalaureate STEM and Foreign Language Teacher Training	
Professional Development for Arts Educators	
School Leadership Program	
Indian Education Professional Development Grants	
Advanced Certification or Advanced Credentialing	
National Writing Project	

#### Programs that have not been evaluated

Academies for American History and Civics

Teachers for a Competitive Tomorrow Program: Masters STEM and Foreign Language Teacher Training

Improving Teacher Quality State Grants

Source: GAO analysis of Education data.

<sup>a</sup>Another evaluation of Teaching American History is currently under way.

<sup>b</sup>Transition to Teaching is an interim evaluation.

In addition to the federal program evaluations shown in table 5, Education evaluates specific interventions intended to improve teacher quality. For example, Education has conducted or has under way evaluations on teacher induction programs, teacher preparation programs, and reading and mathematics professional development and software programs. Specifically, Education completed studies on the impact of professional development on teacher practices and student achievement in early reading as well as on teachers trained through different routes to certification.<sup>25</sup> Moreover, Education and the National Academy of Sciences completed another study on the National Board for Professional Standards, which offers advanced-level certification to teachers. <sup>26</sup> Further. Education officials said that they have 5 other studies under way, such as a study on moving high-performing teachers to low-performing schools. Interventions such as teacher induction programs and professional development are funded under a broad array of teacher quality programs, such as the Improving Teacher Quality State Grants, the Teacher Quality Partnership Grants, the Transition to Teaching program, and Mathematics and Science Partnerships. Education officials overseeing evaluations said that to inform staff in program offices working on related issues, they provide briefings on the results of pertinent evaluations. These briefings include discussions about how the evaluation might be useful for program improvement.

<sup>&</sup>lt;sup>25</sup>U.S. Department of Education, Institute of Education Sciences, *The Impact of Professional Development Models and Strategies on Teacher Practice and Student Achievement in Early Reading* (Washington, D.C.: September 2008); and *An Evaluation of Teachers Trained Through Different Routes to Certification* (Washington, D.C.: February 2009).

<sup>&</sup>lt;sup>26</sup>National Research Council, Assessing Accomplished Teaching: Advanced-Level Certification Programs (Washington, D.C.: 2008).

Education Awards Grants to Researchers to Study Interventions Related to Teacher Quality to Inform Policymakers and Educators about Their Impact In addition to evaluating federal programs, Education also awards grants to researchers to conduct studies related to teacher quality ranging from assessing the effectiveness of reading and mathematics programs to measuring the relationship between teacher content knowledge and student achievement. For example, Education sponsors scientifically rigorous research on strategies for improving the performance of classroom teachers, 1 of 13 research areas established by Education's Institute of Education Sciences (IES).<sup>27</sup> Between 2003 and 2009, Education awarded almost \$160 million in grants to research institutions for 69 studies focused on teacher quality. (See app. IV more information about these studies.)

Education Provides Research and Related Assistance to States and School Districts through the Internet and a System of Regional and National Providers

Education disseminates results from its research to educators and policymakers mainly through the Internet and a system of regional and national providers. Overall, while SEAs reported that the assistance was more useful than SAHEs reported, the results of our survey and discussions with state officials suggest that most of these services are targeted to SEAs and school districts rather than higher education entities. For example, one of the primary Internet vehicles for disseminating research—the What Works Clearinghouse—was identified by officials in 24 of the 48 SEAs as moderately to extremely useful, but only by officials in 15 of the 47 SAHEs that responded to our survey as moderately to extremely useful, as shown in figure 3. Overseen by IES, the What Works Clearinghouse provides educators, policymakers, researchers, and other users with information on what IES considers the best evidence on the effectiveness of specific interventions. For example, IES officials told us that the results of research are synthesized into Practice Guides to make them more usable to practitioners. Current Practice Guides provide information in areas such as reducing behavior problems in the classroom and encouraging girls in math and science.<sup>28</sup>

<sup>&</sup>lt;sup>27</sup>IES also includes the National Center for Education Statistics, which is the primary federal entity for collecting, analyzing, and reporting data on the condition of education in the United States and other nations. IES maintains large data sets, such as the Schools and Staffing Survey, which are available to the public and researchers.

<sup>&</sup>lt;sup>28</sup>Research information is also provided in other products, including Topic Reports, which compile information from intervention reports in specific topics such as reading and mathematics, and Intervention Reports, which examine all studies for a specific intervention within a topic area, rating each study based on evidence standards.

Extremely/very/moderately useful Slightly/not useful Not applicable/no opinion/or no basis to judge 17 What Works 24 Clearinghouse 28 15 **Doing What Works** 16 34 10 13 30 **Regional Educational** Laboratories 27 17 10 **Regional Comprehensive** 33 Centers 6 20 **Teacher Quality** 21 Content Center 5 23 Institute of Education 17 Sciences Studies 29 Number of respondents SEA SAHE

Figure 3: SEA and SAHE Views of the Usefulness of Education Assistance Vary

Note: In some cases, respondents do not total 48 for the SEAs and 47 for the SAHEs because not all SEA and SAHE officials responding to the surveys answered every question.

Education also disseminates research through another Internet vehicle, the Doing What Works Web site, which is intended to help teachers make use of effective teaching practices. Most of the content of Doing What Works is based on information provided through the What Works Clearinghouse, such as classroom practices that are distilled from research contained in the Practice Guides; the site is overseen by the Office of Planning, Evaluation and Policy Development. Only 16 of the 48 SEA and 10 of 47 SAHE officials who responded to our respective surveys identified the Doing What Works Internet site as moderately to extremely useful. According to an Education official, these views may reflect the fact that the site is relatively new, and Education has not widely publicized it.

Education provides research and research-related assistance on teacher quality through regional and national service providers, which work

Source: GAO surveys.

directly with states and school districts. Regional services are provided through the 10 Regional Educational Laboratories (REL) and 16 Regional Comprehensive Centers; national services are provided through the National Comprehensive Center for Teacher Quality. The RELs provide policymakers and educators with technical assistance, training, and research that are based on findings from scientifically valid research. The RELs distill and explain research as well as conduct research to identify effective programs and to address classroom issues facing the states, school districts, schools, and policymakers within their respective regions. Among the 48 SEA officials who responded to our survey, 30 reported that the RELs are moderately to extremely useful, and 17 of the 47 SAHE officials who responded to our survey reported that the RELs are moderately to extremely useful.

Education's 16 Regional Comprehensive Centers assist SEAs within their regions to implement ESEA and to build SEA capacity to help their districts and schools meet student achievement goals. Unlike the RELs, the Regional Comprehensive Centers do not conduct research, but they do identify and synthesize existing research to help SEA officials understand what information is available to improve their schools and student achievement, according to Education officials. Among the 48 SEA officials who responded to our survey, 33 reported Regional Comprehensive Centers' assistance as moderately to extremely useful, while only 6 of the 47 SAHE officials who responded to our survey said that the Regional Comprehensive Centers were moderately to extremely useful.

The National Comprehensive Center for Teacher Quality (one of five National Content Centers supported by the Office of Elementary and Secondary Education) assists the 16 Regional Comprehensive Centers by providing technical assistance in conjunction with their work with the states. <sup>30</sup> Like the Regional Comprehensive Centers, the National Comprehensive Center for Teacher Quality does not conduct original research but provides technical assistance as well as synthesizes and disseminates scientifically based research on effective practice and research-based products on teacher quality.

<sup>&</sup>lt;sup>29</sup>REL research that meet IES standards is presented on the What Works Clearinghouse.

<sup>&</sup>lt;sup>30</sup>Each of the five National Content Centers focuses on and provides expertise, analysis, and research in one of the following areas: accountability, instruction, teacher quality, innovation and improvement, or high schools.

Regional and National Providers Coordinate in Various Ways to Assist States and Districts

Regional and national providers coordinate among themselves and with each other to assist states and districts to improve teacher quality. For example, REL officials said that RELs coordinate among themselves to prevent unnecessary duplication of activities among the regions, as required by their funding agreements with Education. The REL Mid-Atlantic is responsible for ensuring that there is coordination among the 10 RELs. In this role, it manages a REL Web site, which includes information on past and ongoing projects, and it holds regular meetings among the RELs. Regional Comprehensive Center officials also reported that they share information among themselves but on a more informal basis than the RELs.<sup>31</sup> One comprehensive center director reported that the comprehensive center network has several mechanisms for discussing work with states, including semiannual director meetings and conferences that are attended by the staff and directors from the various Regional Comprehensive Centers.

RELs, Regional Comprehensive Centers, and the National Comprehensive Center on Teacher Quality also coordinate with each other as needed. For example, an official with the National Comprehensive Center on Teacher Quality told us that officials often coordinate with the Regional Comprehensive Centers and the SEAs to provide expertise on teacher quality issues. In addition, Education officials said that RELs and the Regional Comprehensive Centers coordinate as needed to address common concerns as well. For example, in one region the Regional Comprehensive Center brought together the REL and the National Comprehensive Center for Teacher Quality to conduct a study of the distribution of highly qualified teachers in one state, as well as the policies, practices, and conditions that affect that distribution. In this effort, the REL used its expertise in research to provide support on research design and data analysis; the National Comprehensive Center for Teacher Quality, while not involved directly with the research, developed surveys and interview protocols for the study; and the Regional Comprehensive Center coordinated the project and piloted the data collection instruments.

<sup>&</sup>lt;sup>31</sup>The Educational Technical Assistance Act of 2002 (Pub. L. No. 107-279, Title II) requires that each comprehensive center coordinate its activities, collaborate, and regularly exchange information with the REL in the region in which the center is located as well as with other technical assistance providers in the region.

States Face Several Challenges in Collaborating Internally to Improve Teacher Quality; Education Provides Some Assistance to Help Address These Challenges State agency officials cited limited resources and incompatible data systems as the greatest challenges to their collaborative efforts within the state to improve teacher quality. Resistance to change, sustained commitment, and state governance structure also affected their efforts to collaborate. While state officials reported some challenges, they also reported successes in their efforts to collaborate within their states across a wide array of teacher quality areas. Nevertheless, they also cite a need for more collaboration, specifically to address training for existing teachers. To help address some of these challenges, Education provides financial support and other forms of assistance to some states.

State Officials Cite Limited Funding, Available Staff and Time, as well as Incompatible K-12 and Postsecondary Data Systems, as the Greatest Challenges, among Other Factors

State officials reported through our surveys (see fig. 4) and state site visits that state budget cuts and reduced staff levels at their agencies inhibit teacher quality collaborative efforts. Collaborative efforts require a commitment of resources, staff, and time, and state officials report that reduced staffing levels have limited the available time that they can commit to collaborating, and it is difficult to be continuously involved. One state official told us that staff are focused on fulfilling state and federal requirements and have little time to address other teacher quality initiatives.

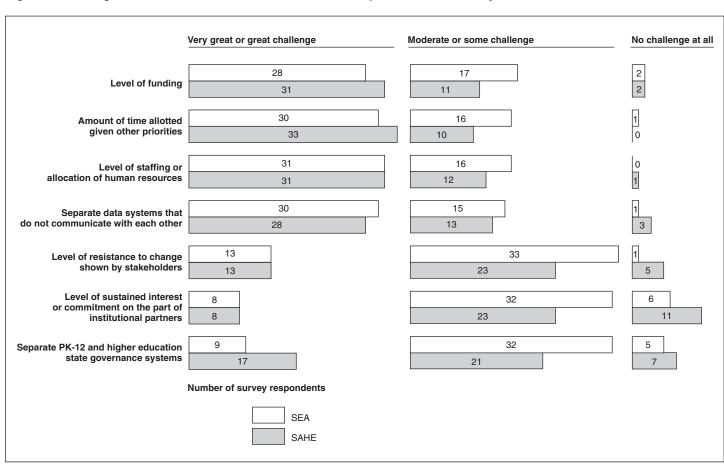


Figure 4: Challenges to Collaborative Efforts within States to Improve Teacher Quality

Source: GAO survey.

Note: In some cases, respondents do not total 48 for the SEAs and 47 for the SAHEs because not all SEA and SAHE officials responding to the surveys answered every question.

State officials also reported that incompatible data systems across the educational information system, such as those containing student-level, teacher-level, and postsecondary data, pose challenges to collaboration on teacher quality efforts. State officials said that some of their objectives for data systems are to link student and teacher data, or to link data from the K-12 education system and the postsecondary education system, to inform and measure teacher quality policy efforts. For example, state officials and experts we spoke with said longitudinal data systems can be used to measure teacher effectiveness through value-added models that estimate existing teachers' contributions to student learning, and that these models may also allow states to determine which teacher preparation programs

produce graduates whose students have the strongest academic growth. For example, Louisiana officials said that although it has taken several years, they have developed a value-added model, based on longitudinal data, that allows them to evaluate the extent to which graduates from teacher preparation programs improve student learning in the classroom. However, experts, a state official, and an Education report cautioned about using student and teacher data in value-added models for reasons such as methodological concerns and an overemphasis on student test scores to the exclusion of other teacher factors that may positively affect students and schools. Moreover, senior officials from Education and state agencies we spoke with said that some key education stakeholders have reservations about linking student and teacher data to measure teacher effectiveness and/or the implications for privacy. Nevertheless, several states reported that statewide longitudinal data for the K-12 through higher education systems can increase collaboration by enhancing feedback loops between the K-12 and higher education systems. This information could, for example, help state agencies address professional development for teachers in the classroom as well as the effectiveness of teacher preparation programs for prospective teachers.

In addition to citing limited resources and incompatible data systems, state agency officials reported that several other factors, such as resistance to change, sustaining commitment, and state governance structures pose challenges to their collaborative efforts to improve teacher quality in their states. For example, state officials reported that different agencies and institutions are resistant to change as a result of long-held beliefs or difficulty in valuing new approaches to improving teacher quality. In one instance, state officials also told us that it is hard to maintain a sustained commitment to address teacher preparation issues because of the volume of state initiatives focused on improving student achievement. Another state official reported that the K-12 and postsecondary systems have separate governance systems, a factor that, given the different missions of each agency, limits how the two interact on education policy. Other state officials said the number of entities playing a role in teacher quality policy limits the state agencies' ability to collaborate on statewide teacher quality initiatives because the state agency must facilitate feedback from a multitude of stakeholders, which can be a time consuming process.

Although states face challenges to collaboration, state officials responding to our surveys and during site visits stressed the importance of these efforts and said that more collaboration is needed, especially to improve professional development training for existing teachers. Our survey results

illustrate that states' teacher quality policy efforts cut across many interrelated areas within the K-12 and postsecondary systems, such as preservice preparation, recruitment, mentoring and induction, teacher assessments for licensure/certification, and continued learning for veteran teachers. State officials reported that improving teacher quality is best achieved through several interrelated initiatives that involve the various stakeholders within the two systems. In our survey, 22 of 48 SEA officials and 34 of 47 SAHE officials cited a great to very great need for more collaboration on teacher quality issues. Although state officials who provided written responses cited a range of teacher quality issues for which more collaboration was needed, including teacher preparation and retention, 16 SEA officials and 21 SAHE officials specifically cited training for existing teachers as a need.

In an effort to further enhance collaboration within the education system, several states have established coordinating bodies to address state education issues, including teacher quality improvement. According to our survey results, these coordinating bodies (often referred to as P-16 or P-20 bodies)—which are intended to create a seamless education system from prekindergarten through the postsecondary system through comprehensive education initiatives—have been generally effective at fostering an integrated approach to teacher quality within states that reported having a coordinating body. For example, one state official reported that the state coordinating body facilitates open communication among state agencies. Nevertheless, state officials reported through our surveys that these coordinating bodies also face challenges to enhancing collaboration, including having limited resources and needing to set priorities and allocate roles and responsibilities. In their review of state coordinating bodies, the Education Commission of the States reported that for these coordinating bodies to be successful, they must commit to long-term reform, include representatives from key stakeholder groups, coordinate initiatives at the state level, and integrate reform into other ongoing efforts. 32

<sup>&</sup>lt;sup>32</sup>Carl Krueger, *The Progress of P-16 Collaboration in the States* (Denver, Colo.: Education Commission of the States, April 2006).

Education Provides Some Financial Support and Other Assistance That May Help Address State-Reported Challenges as well as Enhance Other Collaborative Efforts, Especially for Local-Level Activities

Education administers a grant program designed to help states develop longitudinal data systems and provides some assistance related to these efforts.<sup>33</sup> The State Longitudinal Data Systems grant program is aimed at enhancing SEAs' ability to develop statewide longitudinal data systems. These systems are intended to efficiently manage and analyze education data (including individual student records) to address federal reporting, accountability, and other requirements such as those related to ESEA. One of the program's allowable activities is to expand existing data systems to include teacher data and to link K-12 and higher education data systems. (As shown in app. III, the State Longitudinal Data Systems grant program is 1 of 33 programs that allow or require portions of funding to be used for teacher quality activities, but does so in pursuit of other program purposes or goals.) In our review of applications of states that received grant awards in 2006 or 2007, we found that most states are seeking to link student and teacher data or to link the K-12 and higher education data systems. For fiscal years 2006, 2007, and 2009, 41 states and the District of Columbia were awarded at least one grant ranging from about \$1.5 million to \$9.0 million.<sup>34</sup> In fiscal year 2009, Congress appropriated \$65 million to support the State Longitudinal Data Systems grant program, about a \$17 million increase over the fiscal year 2008 level.

Establishing a longitudinal data system that links prekindergarten through 12th grade and higher education data systems is one of the assurances that states must make to be eligible to receive their portion of the Recovery Act's State Fiscal Stabilization Fund. <sup>35</sup> Specifically, Education is asking states to report their progress toward implementing a statewide data system that includes the 12 elements described in the America COMPETES Act (Pub. L. No. 110-69), one of which is the matching of student data with individual teacher data. Education has provided preliminary guidance on the specific information that states must provide

<sup>&</sup>lt;sup>33</sup>Education also provides some funding for the Center for Analysis of Longitudinal Data in Education Research (CALDER), housed at the Urban Institute. CALDER's mission is to inform education policy development through analyses of data on individual students and teachers over time.

<sup>&</sup>lt;sup>34</sup>According to Education, new grant awards were not made in fiscal year 2008. Most of the funding available in fiscal year 2008 supported 13 continuation awards; the remainder was combined with fiscal year 2009 funding for a new competition. In fiscal year 2009, the 12 states that were awarded a second grant were Arkansas, California, Connecticut, Florida, Kansas, Kentucky, Maryland, Michigan, Ohio, Oregon, Pennsylvania, and Wisconsin.

<sup>&</sup>lt;sup>35</sup>The State Fiscal Stabilization Fund is designed, in part, to help stabilize state and local budgets to minimize and avoid reductions in education and other essential services.

in their applications for funding through the State Fiscal Stabilization Fund. <sup>36</sup> Another \$250 million is provided for the State Longitudinal Data Systems grant program in the Recovery Act that could help states defray costs associated with these efforts.

Education also facilitates information sharing and provides assistance with and research results on state data systems to state officials through technical assistance related to the State Longitudinal Data Systems grant program as well as through a network of regional and national providers that we described previously. Education's Web site contains information on a variety of topics related to data system development and management. Further, Education has hosted grantee conferences that have included panels on topics ranging from data privacy to how states can leverage one another's experiences with these data systems. In addition, a 2007 REL Midwest report outlined how states within its region use data systems and the promising practices of and challenges confronting these states, concluding that opportunities exist to capitalize on states' commitment to developing longitudinal data systems by thinking about these issues more comprehensively and systematically.<sup>37</sup> In March 2009, the REL Midwest and National Comprehensive Center on Teacher Quality cosponsored a live webcast to discuss and disseminate ongoing research on utilizing data systems in teacher evaluation models. In addition to grant funds provided by the State Longitudinal Data System Grant program, state officials told us that conferences, training, and technical assistance from the REL network would assist states in addressing their data system challenges.

In addition to providing the specific funding and assistance for data systems, Education also provides funding to support partnerships within states to address teacher quality. Some of these programs are intended to support accountability for teacher preparation programs at institutions of

<sup>&</sup>lt;sup>36</sup>Included in this guidance is information on specific data metrics that states would use to make transparent their status in the education reform areas. The data metrics include teacher effectiveness and ensuring that all schools have highly qualified teachers, higher standards and rigorous assessments that will improve both teaching and learning, and better information to educators and the public to address the individual needs of students and improve teacher performance. For each metric, a state would need to demonstrate that it collects the required data and that it will make the data easily accessible to the public.

<sup>&</sup>lt;sup>37</sup>Sarah-Kathryn McDonald, Jolynne Andal, Kevin Brown, and Barbara Schneider, *Getting the Evidence for Evidence-based Initiatives: How the Midwest States Use Data Systems to Improve Education Processes and Outcomes* (Washington, D.C.: REL Midwest, 2007).

higher education or to improve teacher preparation programs by requiring partnerships, mainly between school districts and institutions of higher education. Of the 23 programs directed at improving teacher quality that we discussed previously, 8 fund projects specifically requiring partnerships. For example, according to state and university officials in New Jersey, Teacher Quality Enhancement grants have funded efforts to recruit high school students who are interested in pursing teaching in highneed school districts and designing teacher preparation programs for middle school students based on strong content knowledge. These types of efforts are accomplished through consortia, such as partnerships among universities and their respective teacher preparation programs and liberal arts and sciences departments as well as school districts. State and university officials in our site visit states said that these partnership grants generally facilitate useful collaboration among the grant partners. However, one state official told us that outside of federal- and state-funded partnerships between some school districts and institutions of higher education, there are limited opportunities for collaboration between K-12 and higher education. These officials also said the partnerships are sometimes difficult to sustain after the grants have expired. Moreover, another state official and an expert we spoke with explained that these partnership grants do not support a systemic collaboration between the K-12 and higher education systems because the grants involve only a select few institutions in partnerships.

### Conclusion

Providing all children with qualified teachers is a focus of federal policy, and this goal is reflected in Education's strategic and annual performance plans. To help accomplish this goal, Education distributes billions of federal dollars and provides research and other assistance for teacher quality activities through multiple offices and statutorily authorized programs. While Education has engaged in some coordination to share information and expertise within the department, and from time to time has established and completed broader collaborative efforts, coordination among all the relevant offices does not occur on a regular basis.

The success of Education's mission and the achievement of its goals for improving teacher quality and ultimately for increasing student achievement depend in part on how well it manages its wide array of programs and initiatives with regard to funding, assistance, and other priorities, as well as its evaluation and research efforts. Also, the Recovery Act, with its large infusion of onetime funds, as well as its provisions encouraging states, school districts, and institutions of higher education to make improvements in assessing teacher effectiveness and in distributing

qualified and effective teachers equitably, creates an opportunity for the department to leverage new resources with existing structures in a way to improve teacher quality and effectiveness. However, this wide array of programs, initiatives, and structures also creates a challenge for the department. In the absence of a written departmentwide strategy for integrating its wide array of teacher quality programs and efforts, Education's offices may not be aligned in their actions to achieve Education's long-term goal of improving teacher quality. A departmental strategy for collaboration could help states overcome their barriers to improving teacher quality through facilitating compatible data systems as well as encouraging systemic collaboration between state K-12 and higher education institutions and detailing the role each plays in the success of the other. Without clearly articulated strategies and sustained collaborative activities, Education may be missing important opportunities to leverage its financial and other resources, align its activities and processes, as well as develop joint strategies to assist states, districts, and institutions of higher education in improving teacher quality.

# Recommendation for Executive Action

To ensure that departmental goals to improve teacher quality are achieved and that the department's many related efforts are mutually reinforcing, we recommend that the Secretary of Education establish and implement a strategy for sustained coordination among existing departmental offices and programs. A key purpose of this coordination would be to facilitate information and resource sharing as well as strengthening linkages among teacher quality improvement efforts to help states, school districts, and institutions of higher education in their initiatives to improve teacher quality.

# Agency Comments and Our Evaluation

We provided a draft of this report to Education for review and comment. Education's comments are reproduced in appendix V. In its comments, Education agreed that coordination is beneficial, but it favors short-term coordination focused on discrete issues or problems. Education will review the advisability of forming a cross-program committee, but it would first want to ensure that such a group would lead to improvements in the way Education coordinates its approach to teacher quality and the way states and school districts promote teacher quality. Education officials pointed out that these efforts do not always prove useful and said that efforts to coordinate program implementation cannot fully eliminate barriers to program alignment.

While we agree with Education that these efforts have not always been useful and they face numerous barriers and challenges, we nonetheless believe that it is important for the department to develop a strategy for sustained coordination. As it develops a coordination strategy, Education should use its knowledge of past efforts and existing barriers to put in place the conditions necessary for addressing these and other challenges. For example, in their comments Education officials highlighted a barrier from this report of some teacher quality programs having inconsistent legislative definitions and requirements. As part of establishing and implementing a strategy for sustained coordination, Education could consider identifying these specific definitional barriers and others and develop a strategy for addressing them. Successful strategic and annual planning involve identifying goals and challenges facing an agency and detailing how an agency intends to achieve these goals and address these challenges. As we mention in the report, these efforts should include information on how program officials will coordinate and plan crosscutting efforts with other related programs. We encourage Education to formalize its coordination efforts by incorporating them into its planning efforts. Because responsibilities for improving teacher quality are shared among multiple offices, we believe taking a more systematic approach than what has occurred will ensure that different offices routinely become involved in sharing information and resources as well as facilitating linkages among teacher quality improvement efforts.

We acknowledged Education's effort to bring together different offices to work together on discrete issues or problems related to teacher quality and we modified the report to reflect Education's recent coordination effort to address the Recovery Act requirements related to teachers. Education also provided technical comments that we incorporated into the report as appropriate.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time we will send copies of this report to the Secretary of Education, relevant congressional committees, and other interested parties. In addition, this report will also be available at no charge on GAO's Web site at http://www.gao.gov/. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report are listed in appendix VI.

Sincerely yours,

Cornelia M. Ashby

Director, Education, Workforce, and Income Security

Cornelia M. ashby

### Appendix I: Scope and Methodology

To address the objectives of this study, we used a variety of methods. To document the extent to which Education funds and coordinates teacher quality programs, we interviewed Education officials as well as reviewed Education documents and relevant laws. To understand how Education funds and supports research efforts to improve teacher quality, we interviewed officials from a selection of relevant Education-funded research and related assistance providers and at the regional and national levels. To understand the challenges to collaboration within states, we conducted two national surveys—one was sent to state educational agency (SEA) officials in the 50 states and the District of Columbia and a separate survey was sent to state agency for higher education (SAHE) officials in 48 states plus the District of Columbia. We did not send a SAHE survey to New York or Michigan because (1) in New York the executive official of higher education is also responsible for directing kindergarten through 12th grade education and (2) in Michigan there is no state agency or officer with governance authority over higher education. In addition, we conducted site visits in 3 states to understand further the state perspective as well as that of school districts and institutions of higher education. In addition, we interviewed national experts on the various areas of teacher quality. We conducted our work between February 2008 and July 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

<sup>&</sup>lt;sup>1</sup>Because of differences in higher education governance among states, state agencies for higher education include offices, commissions, boards, committees, departments, or organizations with governing authority over higher education in the state.

Objectives 1 and 2: Extent of Education Funding and Coordination of Teacher Quality Programs as well as Education's Monitoring of these Programs

To determine the extent that Education funds and coordinates teacher quality programs, we first identified relevant programs from the Guide to U.S. Department of Education Programs 2008 and classified these programs into two groups based on these differences:<sup>2</sup> (1) programs designed to support teacher quality improvement, and (2) programs that may support teacher quality improvement but do so in pursuit of other goals or purposes. For the first group, or "primary programs," we reviewed the program description for each program, identifying those with a purpose of improving teaching in the classroom for elementary and secondary schools. The description statement of these programs included terms such as professional development, teacher training, teacher preparation, teacher retention, teacher certification, improving teaching through scientifically based research and curriculum development. In addition, we identified the second group of programs—which have a purpose other than improving teacher quality—through a review of the descriptions of the types of projects funded in Education's Program Guide to determine that training teachers or improving instructional programs was an allowable activity. After identifying the respective group of programs, Education officials reviewed the list of programs to verify that we had identified the relevant programs and categorized each program correctly. To understand Education's efforts and requirements for coordinating the 23 programs that we identified as primarily focusing on teacher quality, we reviewed relevant federal laws, performance and accountability reports, and other documentation to identify requirements for coordinating its programs. In addition, we interviewed officials for the offices that oversee these programs to determine whether and how they coordinate their programs to improve teacher quality. These interviews included officials from the Office of Elementary and Secondary Education, the Office of Innovation and Improvement, the Office of Postsecondary Education, the Office of Special Education and Rehabilitative Services, and the Office of English Language Acquisition. We also interviewed officials in Education's Office of Inspector General (OIG) and reviewed relevant OIG reports on Education's efforts to coordinate programs.

To understand how Education monitors states and districts that receive formula and discretionary grants on teacher quality we reviewed relevant

<sup>&</sup>lt;sup>2</sup>This guide is a subset of the *Catalog of Federal Domestic Assistance*, which includes the federal programs from all federal agencies. We updated fiscal year 2008 funding levels with fiscal year 2009 funding levels based on information in the fiscal year 2009 Omnibus Appropriations Act, Education budget documents, and a review of these figures by Education officials.

federal laws, nonregulatory guidance, policy and procedure manuals, monitoring checklists, and monitoring reports or letters to grantees, as well as outside evaluations or audits such as OIG and GAO reports. In addition, to determine the process and procedures for monitoring these programs, we conducted interviews with the relevant officials from each of the five program offices overseeing each of these programs, including officials from the Office of Elementary and Secondary Education, Office of Innovation and Improvement, Office of Postsecondary Education, and Office of Special Education and Rehabilitation Services as well as OIG, and the Office of Risk Management Service in the Secretary of Education's office. Finally, to gather information about Education's monitoring, we interviewed state and district officials during our site visits.

Objective 3:
Evaluation and
Research as well as
Related Assistance
Pertaining to Teacher
Quality

To gather information on Education's evaluation of federal programs, research on teacher quality, and research-related assistance provided to states and districts, we interviewed relevant Education officials as well as state and district officials during our site visits, and reviewed documents and responses to questions on research-related assistance in the survey. To obtain information on Education's evaluation and research efforts as well as dissemination practices, we interviewed relevant officials from Education's Institute of Education Sciences, the Office of Elementary and Secondary Education, and the Office of Planning Evaluation and Policy Development, as well as submitted written follow-up questions to these offices. In addition, we reviewed documented information available on the evaluations conducted on federal programs on teacher quality and on completed and ongoing research on teacher quality practices and interventions. To learn about the research-related assistance provided directly to states, we interviewed officials from the three Regional Educational Laboratories and Regional Comprehensive Centers that provide assistance to our three site visit states.3 We also interviewed officials from the National Comprehensive Center on Teacher Quality. In addition, during our site visits we asked state and district officials about the kinds of assistance that they receive directly from Education, the Regional Educational Laboratories, Regional Comprehensive Centers, and the National Comprehensive Center on Teacher Quality. Finally, in our

<sup>&</sup>lt;sup>3</sup>The Regional Educational Laboratories included the Northwest Regional Educational Laboratory, the Mid-Atlantic Regional Educational Laboratory, and the Southwest Regional Educational Laboratory; the Regional Comprehensive Centers included the Northwest Regional Comprehensive Center, the Mid-Atlantic Regional Comprehensive Center, and the Southeast Regional Comprehensive Center.

surveys, we asked state respondents about the usefulness of the Regional Educational Laboratories, the Regional Comprehensive Centers, the National Comprehensive Center on Teacher Quality, the Institute of Education Sciences studies, as well as the What Works Clearinghouse and Doing What Works Internet sites.

### Objective 4: Challenges to Collaboration within States and Education Efforts to Address these Challenges

To understand the challenges facing state agencies' in their efforts to collaborate within their states on efforts to improve teacher quality, we used two approaches—two state surveys and site visits to three states. First we designed and administered two identical Web-based surveys—one that was sent to SEA officials in all 50 states and the District of Columbia and a second to SAHE officials in 48 states and the District of Columbia. We did not send a SAHE survey to New York or Michigan because (1) in New York the executive official of higher education is also responsible for directing kindergarten through 12th grade education and (2) in Michigan there is no state agency or officer with governance authority over higher education. The surveys were conducted between August and November 2008. Questionnaires were completed by SEA officials in 48 states for a response rate of 94 percent, and SAHE officials in 47 states for a response rate of 96 percent.

The surveys posed a combination of questions that allowed for openended and closed-ended responses. They included questions about state efforts including (1) state agency initiatives across a wide range of teacher quality areas, (2) state agencies' collaborative activities within their state, (3) the role of a state coordinating body (where applicable) in teacher quality initiatives, and (4) the usefulness of grant funds and technical assistance provided by Education.

The surveys were conducted using self-administered electronic questionnaires posted on the World Wide Web. We sent e-mail notifications to all 51 SEA officials and 49 SAHE officials beginning on September 15, 2008. To encourage respondents to complete the questionnaire, we sent an e-mail message to prompt each nonrespondent each week after the initial e-mail, on September 22, 2008, and October 1, 2008. We also contacted officials by telephone to further increase our response rate. We closed both surveys on November 23, 2008.

Some of the survey questions were open-ended, allowing respondents an opportunity to provide thoughts and opinions in their own words. To categorize and summarize these responses, we performed a systematic content analysis of a select number of open-ended questions. Two GAO

staff independently coded the responses. All initial disagreements regarding placement into categories were discussed and reconciled. Agreement regarding each placement was reached again between at least two analysts. The numbers of responses in each content category were then summarized and tallied.

Because this was not a sample survey, there are no sampling errors. However, the practical difficulties of conducting any survey may introduce nonsampling errors, such as variations in how respondents interpret questions and their willingness to offer accurate responses. We took a number of steps to minimize nonsampling errors. For example, a social science survey specialist designed the questionnaires in collaboration with GAO staff with subject matter expertise. During survey development, we received feedback from three external peer reviewers and Education officials. The questionnaires also underwent a peer review by a second GAO survey specialist. Each draft instrument was then pretested two times with appropriate officials in New Mexico, Wisconsin, and West Virginia to ensure that the questions and information provided to respondents were relevant, clearly stated, and easy to comprehend. The pretesting took place during July and August 2008. Since these were Webbased surveys, respondents entered their answers directly into electronic questionnaires. This eliminated the need to have data keyed into databases, thus removing an additional source of error. Finally, to further minimize errors, computer programs used to analyze the survey data were independently verified by a second GAO data analyst to ensure the accuracy of this work.

While we did not fully validate specific information that states reported through our survey, we took several steps to ensure that the information was sufficiently reliable for the purposes of this report. For example, we contacted state officials via phone and e-mail to follow up on obvious inconsistencies, errors, or incomplete answers. We also performed computer analyses to identify inconsistencies in responses and other indications of error. On the basis of our checks, we believe our survey data are sufficient for the purposes of this report. The surveys and a complete tabulation of aggregated results can be viewed at GAO-09-594SP.

We also conducted site visits to three states—Louisiana, New Jersey, and Oregon. These states were selected based on their having initiatives that focus on teacher quality, such as coordinating bodies that are intended to

Appendix I: Scope and Methodology

bridge the K-12 and higher education systems,<sup>4</sup> and on diversity in terms of geographic location, population, and amount of federal teacher quality program funding. In each state we met with SEA and SAHE officials, and to understand the local perspective, we met with officials in at least one school district and two universities. In addition, we interviewed experts on teacher quality, including those at the American Institutes for Research, Education Trust, Congressional Research Service, and the University of Pennsylvania. We also reviewed several studies on teacher quality funding and activities.

<sup>&</sup>lt;sup>4</sup>Coordinating bodies work to integrate a student's education from kindergarten through a four-year college degree by coordinating statewide education initiatives and reforms. Examples of such coordinating bodies include what are commonly referred to as P-16/20 councils, though some states refer to them differently (e.g., commissions, roundtables, committees, initiatives, etc.). On the basis of our review of the literature, we found that a large number of these bodies address some aspect of teacher quality.

<b>D</b>	Out the sine		<b>D</b>	Fiscal year 2009 appropriations (Dollars in
Elementary and Secondary Education Act	Grant design	Eligible recipients	Purpose	thousands)
Improving Teacher Quality State Grants (also known as Title II, Part A)	Formula	Awards made to state educational agencies (SEA) that, in turn, make formula subgrants to school districts. State agencies for higher education (SAHE) also receive a formula grant that, in turn, is awarded competitively to partnerships that must include at least one institution of higher education (IHE) and its division that prepares teachers and principals, a school of arts and sciences, and a high-need school district.	To increase academic achievement by improving teacher and principal quality.	\$2,947,749
Enhancing Education Through Technology Program	Formula	SEAs.	To improve student achievement through use of technology in elementary and secondary schools and to help all students become technologically literate by the end of the eighth grade and, through the integration of technology with both teacher training and curriculum development, establishing research-based instructional methods that can be widely implemented.	269,872
Mathematics and Science Partnerships	Formula	Awards are made to SEAs. Partnerships of school districts and IHEs may apply to states for subgrants. Partnership must include, at a minimum, an engineering, mathematics, or science department of an IHE, and a high-need school district.	To increase the academic achievement of students in mathematics and science by enhancing the content knowledge, teaching skills, and instruction practices of classroom teachers.	178,978
Teaching American History	Competitive	School districts applying in partnership with one or more of the following: IHEs, nonprofit history or humanities organizations, libraries, or museums.	To raise student achievement by improving teachers' knowledge and understanding of and appreciation for traditional U.S. history.	118,952

Program name	Grant design	Eligible recipients	Purpose	Fiscal year 2009 appropriations (Dollars in thousands)
Early Reading First	Competitive	School districts eligible for a Reading First subgrant and public or private organizations or agencies located in a community served by an eligible district may apply.	Supports local efforts to enhance the early language, literacy, and prereading development of preschool-age children, particularly those from low-income families, through strategies and professional development that are based on scientifically based reading research.	112,549
Teacher Incentive Fund	Competitive	School districts, including charter schools that are districts in their state, SEAs, or partnerships of (1) a district, SEA, or both, and (2) at least one nonprofit organization may apply.	To support efforts to develop and implement performance-based teacher and principal compensation systems in highneed schools.	97,270ª
Transition to Teaching	Competitive	High-need school districts, SEAs, for-profit or nonprofit organizations, IHEs, regional consortia of SEAs, or consortia of high-need districts may apply. IHEs, for-profits, and nonprofits must be in partnership with a high-need district or an SEA.	To support the recruitment and retention of highly qualified midcareer professionals, including qualified paraprofessionals, and recent college graduates who have not majored in education to teach in high-need schools and districts through the development of new or enhanced alternative routes to certification.	43,707
English Language Acquisition National Professional Development Project	Competitive	IHEs as well as consortia of these institutions and SEAs or school districts.	To support professional development activities for education personnel working with English language learners.	41,800

Program name	Grant design	Eligible recipients	Purpose	Fiscal year 2009 appropriations (Dollars in thousands)
Striving Readers	Competitive	(1) School district that (a) are eligible to receive funds under the Elementary and Secondary Education Act (ESEA), Title I, Part A, pursuant to Sec. 1113 of ESEA and (b) serve students in one or more of grades 6 through 12. Eligible districts may apply individually, with other eligible districts, or in partnership with one or more of the following entities: SEAs; intermediate service agencies; public or private IHEs; and public or private organizations with expertise in adolescent literacy, rigorous evaluation, or both. (2) SEAs on behalf of one or more districts that meet the requirements above. SEAs must apply on behalf of one or more eligible districts and also may partner with one or more of the following entities: intermediate service agencies; public or private IHEs; and public or private organizations with expertise in adolescent literacy, rigorous evaluation, or both. For any application, the fiscal agent must be an eligible district or an SEA.	students who are reading below grade level, and serve schools by improving the literacy skills of struggling adolescent readers and to help build a strong, scientific research base around specific strategies that improve adolescent literacy skills.	35,371
School Leadership Program	Competitive	High-need school districts, consortia of high-need districts, or partnerships that consist of at least one high-need school district and at least one nonprofit organization (which may be a community- or faith-based organization) or institutions of higher education may apply.	To support the development, enhancement, or expansion of innovative programs to recruit, train, and mentor principals (including assistant principals) for high-need districts.	19,220
Troops-to-Teachers	Noncompetitive	Current and former members of the U.S. armed forces, including members of the Armed Forces Reserves.	Provides financial assistance and counseling to help military personnel obtain their teacher licenses, especially in shortage areas, such as math, science, and special education, and find employment in high-need districts and schools, as well as charter schools.	14,389

Program name	Grant design	Eligible recipients	Purpose	Fiscal year 2009 appropriations (Dollars in thousands)
Indian Education Professional Development Grants	Competitive	(1) IHEs, including Indian IHEs; (2) SEAs or school districts, in consortium with these institutions; (3) Indian tribes or organizations, in consortium with IHEs; and (4) the U.S. Department of the Interior's Bureau of Indian Education-funded schools in consortium with IHEs.	To prepare and train Indian individuals to serve as teachers and education professionals. Professional development grants are awarded to increase the number of qualified Indian individuals in professions that serve Indians; provide training to qualified Indians to become teachers, administrators, teacher aides, social workers, and ancillary education personnel; and improve the skills of those qualified Indians who serve currently in those capacities.	8,211
Ready-to-Teach	Competitive	For National Telecommunications Grants, nonprofit telecommunication entities or a partnership of such entities may apply.	Supports two types of grants to nonprofit telecommunications entities: (1) grants to carry out a national telecommunications-based program to improve teaching in core curriculum areas and (2) digital educational programming grants that enable eligible entities to develop, produce, and distribute educational and instructional video programming.	10,700
Advanced Certification or Advanced Credentialing	Noncompetitive	SEAs; school districts; the National Board for Professional Teaching Standards, in partnership with a high-need school district or SEA; the National Council on Teacher Quality, in partnership with a high-need SEA or district; or another recognized entity, including another recognized certification or credentialing organization, in partnership with a high-need SEA or district.	Supports activities to encourage and support teachers seeking advanced certification or advanced credentialing through high-quality professional teacher enhancement programs designed to improve teaching and learning.	10,649

Program name	Grant design	Eligible recipients	Purpose	Fiscal year 2009 appropriations (Dollars in thousands)
Professional Development for Arts Educators	Competitive	(1) A school district acting on behalf of a school or schools where at least 50 percent of the children are from low-income families; and (2) must work in partnership with at least one of the following: a state or local nonprofit or governmental arts organization; an institution of higher education; a SEA or regional education service agency; a public or private agency, institution, or organization including a museum, arts education association, library, theater, or community- or faith-based organization.	Supports the implementation of high-quality professional development model programs in elementary and secondary education in music, dance, drama, media arts, and visual arts for arts educators and other instructional staff of K-12 students in high-poverty schools.	7,464
Territories and Freely Associated States Education Grant Program	Competitive, but limited to outlying areas	School districts in the outlying areas (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the U.S. Virgin Islands) and the Republic of Palau.	To support teacher training, curriculum development, instructional materials or general school improvement and reform, and direct educational services. The Pacific Regional Educational Laboratory provides technical assistance and makes recommendations for funding to the Secretary of Education, who conducts a grants competition.	5,000
National Writing Project	Noncompetitive	Only the National Writing Project is eligible.	The National Writing Project is a nationwide nonprofit education organization that promotes K-16 teacher training programs in the effective teaching of writing.	24,291
Higher Education Act				
Teacher Quality Partnership Grants	Competitive	Partnership of institution of higher education, including a teacher preparation program and a school or department of arts and science, at least one high-need school district, and either a high-need school or a consortium of high-need schools served by the high-need school district; or as applicable, a high-need early childhood education program.	Through collaborative efforts, to support the prebaccalaureate preparation of teachers or a teaching residency program, or a combination of such programs. Grants may also be used to carry out a leadership development program.	50,000°

				Fiscal year 2009 appropriations (Dollars in
Program name Individuals with	Grant design	Eligible recipients	Purpose	thousands)
Disabilities Education Act				
Special Education— Personnel Development to Improve Services and Results for Children with Disabilities	Competitive	Institutions of higher education, school districts, nonprofit organizations, and other organizations and/or SEAs.	To improve the quality of K-12 special education teacher preparation programs to ensure that program graduates are able to meet the highly qualified teacher requirements and are well prepared to serve children with a high incidence of disabilities.	90,653
Special Education— State Personnel Development Grant Program	Competitive	SEA.	To assist SEAs in reforming and improving their systems for personnel preparation and professional development in early intervention, education, and transition services in order to improve results for children with disabilities	48,000
America COMPETES Act				
Teachers for a Competitive Tomorrow Program: Baccalaureate Science, Technology, Engineering and Mathematics (STEM) and Foreign Language Teacher Training	Competitive	Institutions of higher education.	To develop and implement programs providing courses of study in science, technology, engineering, and mathematics fields or critical foreign languages that are integrated with teacher education.  Graduates receive baccalaureate degrees in STEM fields or critical foreign languages, concurrent with teacher certification.	1,092
Teachers for a Competitive Tomorrow Program: Masters STEM and Foreign Language Teacher Training	Competitive	Institutions of higher education.	To offer a master's degree in a STEM field or critical foreign language content areas to current teachers and to enable professionals in these fields to pursue a 1-year master's degree that leads to teacher certification.	1,092

Program name	Grant design	Eligible recipients	Purpose	Fiscal year 2009 appropriations (Dollars in thousands)
American History and Civics Education Act of 2004				
Academies for American History and Civics	Competitive	IHEs, museums, libraries, and other public and private agencies, organizations, and institutions (including for-profit organizations) or a consortium of such agencies, organizations, and institutions may apply. Applicants must demonstrate expertise in historical methodology or the teaching of history.	Supports the establishment of Presidential Academies for Teachers of American History and Civics that offer workshops for both veteran and new teachers of American history and civics to strengthen their knowledge and preparation for teaching these subjects. The program also supports establishment of Congressional Academies for Students of American History and Civics for high school students to develop a broader and deeper understanding of these subjects.	\$1,945

Source: GAO analysis of Department of Education data.

<sup>a</sup>The Teacher Incentive Fund also received \$200 million in funding through the American Recovery and Reinvestment Act of 2009 (Recovery Act).

<sup>b</sup>The Teacher Quality Enhancement grant received an additional \$100 million through the Recovery Act.

Program	Purpose	Grant recipient
Grant design: formula of		
Improving Basic Academic Achievement Programs for the Disadvantaged	To ensure that all children have a fair, equal opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments.	SEAs and school districts.
Tech Prep Education	Program provides assistance to states to award grants to consortia of school districts and postsecondary education institutions for the development and operation of programs consisting of the last 2 years of secondary education and at least 2 years of postsecondary education, designed to provide Tech Prep education to the student leading to an associate degree or a 2-year certificate.	Awards are made to eligible state agencies for career and technical education, which award funds on the basis of a formula or competition to consortia. Eligible consortia must include at least one member in each of the two following categories: (1) A school district, an intermediate education agency, education service agency, or an area career and technical education school serving secondary school students, or a secondary school funded by Bureau of Indian Affairs; or (2) either (a) a nonprofit institution of higher education (IHE) that offers a 2-year associate degree, 2-year certificate, or 2-year postsecondary apprenticeship program, or (b) a proprietary institution of higher education that offers a 2-year associate degree program.
Career and Technical Education—Basic Grants to States	To develop the academic, career, and technical skills of secondary and postsecondary students who enroll in career and technical programs. This program provides states with support for leadership activities, administration of the state plan for career and technical education, and subgrants to eligible recipients to improve career and technical education programs.	State agencies for career and technical education.
Indian Education— Formula Grants to Local Education Agencies	Program designed to address the unique education and culturally related academic needs of American Indian and Alaska Native students, including preschool children, so that these students can achieve the same challenging state performance standards expected of all students. This is Education's principal vehicle for addressing the particular needs of Indian children. Grant funds supplement the regular school programs and support such activities as after-school programs, early childhood education, tutoring, and dropout prevention.	Districts that enroll a threshold number of eligible Indian children and certain schools funded by the Bureau of Indian Affairs; Indian tribes, and under certain conditions, may also apply.
Migrant Education— Basic State Formula Grants	Supports high-quality education programs for migratory children and helps ensure that migratory children who move among the states are not penalized by disparities among states in curriculum, graduation requirements, or state academic content and student academic achievement standards. States use program funds to identify eligible children and provide education and support services. These may include academic instruction, bilingual and multicultural instruction, career education services, advocacy services, counseling and testing services, health services, and preschool services.	SEAs, which in turn make subgrants to local operating agencies that serve migrant students. Local operating agencies may be school districts, institutions of higher education, and other public and nonprofit agencies.

Program	Purpose	Grant recipient
Even Start	Program offers grants to support local family literacy projects that integrate early childhood education, and adult literacy. Five percent of funds are is aside for family literacy grants for migratory worker families, the outlying areas, and Indian tribes and tribal organizations; one grant must be awarded to a women's prison and up to 3 percent is for evaluation activities. Remaining funds are allocated to SEAs based on their Title I, Part A allocation and SEAs make competitive subgrants to partnerships of school districts and other organizations. Projects include providing staff training and support services.	SEAs and subgrants to school district partnerships.
Small Rural School Achievement	To provide financial assistance to rural school districts to assist them in meeting their state's definition of adequate yearly progress. Note: a school district that is eligible for this program is not eligible for the Rural and Low-Income Schools program (see below).	Primarily to districts that (1) have a total average daily attendance of fewer than 600 students or only serve schools located in counties of fewer than 10 persons per square mile, and (2) serve schools with Education's National Center for Education Sciences locale code of 7 or 8 or located in an area defined as rural by state.
Rural and Low-Income Schools	To provide financial assistance to rural districts to assist them in meeting their state's definition of adequate yearly progress. This program provides grant funds to rural districts that serve concentrations of children from low-income families.	SEAs receive grants and provide subgrants to school districts in which (1) 20 percent or more of the children age 5-17 served by the school district are from families with incomes below the poverty line, (2) all schools served by the district have a school locale code of 6,7, or 8; and are (3) not eligible to participate in the Small Rural School Achievement program.
Preschool Grants for Children with Disabilities	To provide special education services to children with disabilities, ages 3-5. Permitted expenditures include the salaries of special education teachers and costs associated with related services.	SEAs.
Special Education Grants to States	Assists states including the District of Columbia and Puerto Rico in meeting the costs of providing special education and related services to children with disabilities. States may use funds to provide a free appropriate public education to children with disabilities. Permitted expenditures include the salaries of special education teachers and costs associated with related services personnel, such as speech therapists and psychologists.	SEAs and school districts.
English Language Acquisition State Grants	To improve the education of limited English proficient children and youths by helping them to learn English and meet state academic content and student academic achievement standards.	SEAs and subgrants to school districts.
Grant design: competit	ive grants	
Career and Technical Education—Grants to Native Americans and Alaska Natives	To improve the career and technical education skills of Native Americans and Alaska Natives. Projects make improvements in career and technical education programs for Native American and Alaska Native youths.	Federally recognized Indian tribes, tribal organizations, Alaska Native entities, and consortia of any of the previously mentioned entities may apply.

Program	Purpose	Grant recipient
Career and Technical Education—Native Hawaiians	Provides assistance to plan, conduct, and administer programs or portions of programs that provide career and technical training and related activities to Native Hawaiians. Program supports career and technical education and training projects for the benefit of Native Hawaiians.	Community-based organizations primarily serving and representing Native Hawaiians.
Advanced Placement Incentive Program	Enables grantees to increase the participation of low-income students in both pre-advanced placement and advanced placement courses and tests. Allowable activities include professional development for teachers, curriculum development, the purchase of books and supplies, and other activities directly related to expanding access to and participation in advanced placement courses and tests for low-income students.	School districts, SEAs, and nonprofit organizations.
Improving Literacy Through School Libraries	Program helps school districts improve reading achievement by providing students with increased access to up-to-date school library materials; well-equipped, technologically advanced school library media centers; and professionally certified school library media specialists. School districts may use funds for a variety of activities such as providing professional development for school library media specialists and providing activities that foster increased collaboration among library specialists, teachers, and administrators.	School districts in which at least 20 percent of students served are from families with incomes below the poverty line.
Indian Education Demonstration Grants for Indian Children	Designed to improve the education opportunities and achievement of preschool, elementary, and secondary Indian children by developing, testing, and demonstrating effective services and programs. Funding priorities in 2008 were for (1) school readiness projects that provide age-appropriate educational programs and language skills to 3-and 4-year-old Indian students to prepare them for successful entry into school at the kindergarten level and (2) college preparatory programs for secondary school students designed to increase competency and skills in challenging subject matter, such as mathematics and science.	SEAs, school districts, Indian tribes, Indian organizations, federally supported elementary and secondary schools for Indian students, and Indian institutions, including Indian institutions of higher education, or consortia of such entities.
Migrant Education Program—Even Start	Designed to help break the cycle of poverty and improve the literacy of participating migrant families by integrating early childhood education, adult literacy or adult basic education, and parenting education into a unified family literacy program. Funds support projects such as early childhood education, adult education; Head Start programs, training for staff, and support services.	Institutions of higher education, school districts, SEAs, and nonprofit and other organizations and agencies.
Carol M. White Physical Education Program	Provides grants to initiate, expand, and improve physical education programs for K-12 students to help them make progress toward meeting state standards for physical education. Funds may be used to provide equipment and support and to enable students to participate actively in physical education activities. Funds also may support staff and teacher training and education.	School districts and community-based organizations.

Program	Purpose	Grant recipient
Magnet Schools Assistance	Grants assist in the desegregation of public schools by supporting the elimination, reduction, and prevention of minority group isolation in elementary and secondary schools with substantial numbers of minority group students. Projects must support the development and implementation of magnet schools that assist in the achievement of systemic reforms and provide all students with the opportunity to meet challenging academic content and achievement standards. Projects support the development and design of innovative education methods and practices that promote diversity and increase choices in public education programs. The program supports capacity development through professional development and other activities, such as the implementation of courses of instruction in magnet schools that strengthen students' knowledge of core academic subjects. Program supports the implementation of courses of instruction in magnet schools that strengthen students' knowledge of core academic subjects.	School districts or consortia of districts that are implementing court-ordered or federally approved voluntary desegregation plans that include magnet schools are eligible to apply.
Arts in Education— Model Development and Dissemination Grants Program	Supports the enhancement, expansion, documentation, evaluation, and dissemination of innovative, cohesive models that demonstrate effectiveness in (1) integrating into and strengthening arts in the core elementary and middle school curricula, (2) strengthening arts instruction, and (3) improving students' academic performance, including their skills in creating, performing, and responding to the arts. Funds must be used to (1) further the development of programs designed to improve or expand the integration of arts education, (2) develop materials designed to help replicate or adapt arts programs, (3) document and assess the results and benefits of arts programs, and (4) develop products and services that can be used to replicate arts programs in other settings.	School districts and nonprofit organizations.
Women's Educational Equity	Promotes education equity for women and girls through competitive grants. Allowable activities include training for teachers and other school personnel to encourage gender equity in the classroom, evaluating exemplary model programs, school-to-work transition programs, guidance and counseling activities to increase opportunities for women in technologically demanding workplaces, and developing strategies to assist districts in evaluating, disseminating, and replicating gender-equity programs.	Institutions of higher education, school districts, SEAs, nonprofit organizations, other organizations and agencies.
Native American and Alaska Native Children in School	Provides grants to support language instruction education projects for Limited English Proficient children from Native American, Alaska Native, Native Hawaiian, and Pacific Islander backgrounds to ensure that they meet the same rigorous standards for academic achievement that all children are expected to meet.	Indian tribes; tribally sanctioned education authorities; Native Hawaiian or Native American Pacific Islander native language education organizations; and elementary, secondary, or postsecondary schools operated or funded by the Bureau of Indian Affairs Education, or a consortium of such schools and an institution of higher education.

Program	Purpose	Grant recipient
Fund for the Improvement of Education—Programs of National Significance	This program provides authority for the Secretary of Education to support nationally significant programs to improve the quality of elementary and secondary education at the state and local levels and to help all students meet challenging state academic standards.	Institutions of higher education, school districts, SEAs, and nonprofit and other organizations and agencies.
Jacob K. Javits Gifted and Talented Student Education	To carry out a coordinated program of scientifically based research, demonstration projects, innovative strategies, and similar activities designed to enhance the ability of K-12 schools to meet the education needs of gifted and talented students.	Institutions of higher education, school districts, SEAs, nonprofit organizations, other organizations and agencies.
Foreign Language Assistance Program (Districts)	Provides grants to establish, improve, or expand innovative foreign language programs for elementary and secondary school students. In awarding grants under this program, the Secretary of Education supports projects that (1) show the promise of being continued beyond their project period and (2) demonstrate approaches that can be disseminated and duplicated by other school districts.	School districts.
Foreign Language Assistance Program (SEAs)	Provides grants to establish, improve, or expand innovative foreign language programs for elementary and secondary school students. In awarding grants under this program, the Secretary of Education supports projects that promote systemic approaches to improving foreign language learning in the state.	SEAs.
Native Hawaiian Education Program	To develop innovative educational programs to assist Native Hawaiians and to supplement and expand programs and authorities in the area of education.	School districts, SEAs, and IHEs with experience in developing or operating Native Hawaiian programs or programs of instruction in the Native Hawaiian language, and Native Hawaiian education organizations; public and private nonprofit organizations, agencies, and institutions; and consortia thereof.
Alaska Native Education Equity	To meet the unique education needs of Alaska Natives and support supplemental programs to benefit Alaska Natives. Activities include, but are not limited to, the development of curricula and education programs that address student needs and the development and operation of student enrichment programs in science and mathematics. Eligible activities also include professional development for educators, activities carried out through Even Start and Head Start programs, family literacy services, and dropout prevention programs.	An SEA or school district may apply as part of a consortium involving an Alaska Native organization. Also Alaska Native organizations, education entities with experience in developing or operating Alaska Native programs or programs of instruction conducted in Alaska Native languages, cultural and community-based organizations with experience in developing or operating programs to benefit Alaska Natives, and consortia or organizations.
Special Education— National Activities- Technology and Media Services	To (1) improve results for children with disabilities by promoting the development, demonstration, and use of technology; (2) support educational media services activities designed to be of value in the classroom setting for children with disabilities; and (3) provide support for captioning and video description that and appropriate for use in the classroom setting. Program supports technology development, demonstration, and utilization. Educational media activities, such as video descriptions and captioning of educational materials, also are supported.	Institutions of higher education, school districts, SEAs, nonprofit organizations, or other organizations.

Program	Purpose	Grant recipient
Special Education— National Activities— Technical Assistance and Dissemination	To promote academic achievement and improve results for children with disabilities by providing technical assistance, model demonstration projects, dissemination of useful information, and implementation activities that are supported by scientifically based research.	Institutions of higher education, school districts, SEAs, nonprofit organizations, and other organizations and/or agencies.
Excellence in Economic Education	This program promotes economic and financial literacy among all students in kindergarten through grade 12 through the award of one grant to a national nonprofit education organization that has as its primary purpose the improvement of the quality of student understanding of personal finance and economics.	The National Council on Economic Education, SEAs, school districts.
Fund for the Improvement of Postsecondary Education— Comprehensive Program	A program supporting innovative reform projects for improving the quality of postsecondary education and increasing student access.	Institutions of higher education, and other organizations and agencies.
Statewide Longitudinal Data Systems	To enable SEAs to design, develop, and implement statewide longitudinal data systems to efficiently and accurately manage, analyze, disaggregate, and use individual student data, consistent with the Elementary and Secondary Education Act of 1965, as amended (20 U.S.C. 6301 et seq.).	SEAs.

Source: GAO analysis of Department of Education data.

# Appendix IV: Institute of Education Sciences' Sponsored Research on Teacher Quality, 2003–2009

Year	Research recipient	Teacher quality project	Grant award
2009	University of California, Berkeley	Teacher Quality: The Role of Teacher Study Groups as a Model of Professional Development in Early Literacy for Preschool Teachers	\$1,339,403
2009	Education Development Center, Inc.	Assessing the Efficacy of a Comprehensive Intervention in Physical Science on Head Start Teachers and Children	2,999,841
2009	University of Texas Health Science Center at Houston	Improving School Readiness of High Risk Preschoolers: Combining High Quality Instructional Strategies with Responsive Training for Teachers	2,653,503
2009	University of Cincinnati	INSPIRE Urban Teaching Fellows Program	1,500,000
2009	The Pennsylvania State University	Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education	932,424
2009	University of Illinois at Chicago	Enhancing Effectiveness and Connectedness Among Early Career Teachers in Urban Schools	1,012,701
2008	University of California, San Diego	Education Research: BioBridge Teacher Quality—The BioBridge Teacher Professional Development	948,447
2008	University of South Florida	Leadership for Integrated Middle-School Science	1,444,403
2008	University of Michigan	Development of an Interactive, Multimedia Assessment of Teachers' Knowledge of Early Reading	1,770,582
2008	National Bureau of Economic Research	Value-Added Models and the Measurement of Teacher Quality: Tracking or Causal Effects	294,295
2008	University of Pittsburgh	The Iterative Design of Modules to Support Reading Comprehension Instruction	1,386,901
2008	Ohio State University	Efficacy of Read It Again! In Rural Preschool Settings	3,073,485
2008	Rutgers, the State University of New Jersey	Development and Validation of a Teacher Progress Monitoring Scale for Elementary School Teachers	1,438,905
2008	Iris Media Inc.	Online Teacher Training: Promoting Student Social Competence to Improve Academic and Behavioral Outcomes in Grades K-3	2,293,415
2008	Mid-Continent Regional Educational Laboratory	Visualizing Science with Adapted Curriculum Enhancements	1,489,399
2007	Mills College	Improving the Mathematical Content Base of Lesson Study Design and Test of a Research-Based Toolkit	1,997,590
2007	WestEd	Understanding Science: Improving Achievement of Middle School Students in Science	1,990,754
2007	University of Virginia	The Efficacy of the Responsive Classroom Approach for Improving Teacher Quality and Children's Academic Performance	2,814,668
2007	Milwaukee School of Engineering	Effect of the SUN Teacher Workshop on Student Achievement	1,262,083
2007	Purdue University	Classroom Links to Vocabulary and Phonological Sensitivity Skills	1,738,508
2007	University of Virginia	Pre-K Mathematics and Science for At-Risk Children: Outcomes-Focused Curricula and Support for Teaching Quality	1,949,854
2007	University of Oregon	Reading Intervention with Spanish Speaking Students: Maximizing Instructional Effectiveness in English and Spanish	3,498,216
2007	University of Michigan	Modeling Situation Awareness in Teachers	816,936

Year	Research recipient	Teacher quality project	Grant award
2007	University of Illinois, Chicago	Collaborative Teacher Network	1,207,516
2007	University of Kansas	Improving Instruction Through Implementation of the Partnership Instructional Coaching Model	1,919,577
2007	Florida State University	The Effects of Teacher Preparation and Professional Development on Special Education Teacher Quality	640,044
2007	University of Florida	The Influence of Collaborative Professional Development Groups & Coaching on the Literacy Instruction of Upper Elementary Special Education Teachers	2,293,415
2007	University of Florida	Impact of Professional Development on Preschool Teachers' Use of Embedded-Instruction Practices	1,288,510
2006	University of California, Berkeley	Integrating Science and Diversity Education: A Model of Pre-Service Elementary Teacher Preparation	1,473,522
2006	LessonLab, Inc.	Using Video Clips of Classroom Instruction as Item Prompts to Measure Teacher Knowledge of Teaching Mathematics: Instrument Development and Validation	1,413,121
2006	California State University, Long Beach	Standards-Based Differentiated ELD Instruction to Improve English Language Arts Achievement for English Language Learners	991,630
2006	University at Albany, State University of New York	Enhancing Knowledge Related to Research-Based Early Literacy Instruction Among Pre-Service Teachers	1,440,551
2006	University of California, Irvine	The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of Secondary English Language Learners	2,942,842
2006	University of Pittsburgh	Content-Focused Coaching for High Quality Reading Instruction	5,946,864
2006	Research Foundation of the State University of New York	Do Lower Barriers to Entry Affect Achievement and Teacher Retention: The Case of New York City Math Immersion	429,500
2006	Miami Museum of Science	Early Childhood Hands-On Science Curriculum Development and Demonstration Project	1,415,652
2006	University of Virginia	National Center for Research on Early Childhood Education (NCRECE): Preschool Teacher Professional Development Study	11,016,009
2006	Vanderbilt University	National Center for Performance Incentives	10,835,509
2006	Urban Institute	Center for the Analysis of Longitudinal Data in Education Research (CALDER)	10,000,000
2006	University of Hawaii	I in the IEP [IEP is the acronym for Individual Education Program.]	1,500,000
2005	Allegheny Singer Research Institute	Mentoring Teachers Through Pedagogical Content Knowledge Development	957,825
2005	Education Development Center, Inc.	Assessing the Potential Impact of a Professional Development Program in Science on Head Start Teachers and Children	1,367,500
2005	University of Nebraska-Lincoln	Evolving Inquiry: An Experimental Test of a Science Instruction Model for Teachers in Rural, Culturally Diverse Schools	1,261,684
2005	University of Toledo	Utah's Improving Science Teacher Quality Initiative	913,620
2005	South Carolina Department of Education	Investigating the Efficacy of a Professional Development Program in Classroom Assessment for Middle School Reading and Mathematics	1,680,625
2005	SRI International	Comparing the Efficacy of Three Approaches to Improving Teaching Quality in Science Education: Curriculum Implementation, Design, and Adaptation	1,864,415

Year	Research recipient	Teacher quality project	Grant award
2005	University of South Florida	Replication and Outcomes of the Teaching SMART Program in Elementary Science Classrooms	2,408,168
2005	Florida State University	Identifying the Conditions Under Which Large Scale Professional Development Policy Initiatives are Related to Teacher Knowledge Instructional Practices, and Student Reading Outcomes	500,000
2005	Success for All Foundation	Embedded Classroom Multimedia: Improving Implementation Quality and Student Achievement in a Cooperative Writing Program	1,498,045
2005	Texas A&M University	Enhancing the Quality of Expository Text Instruction Through Content and Case-Situated Professional Development	1,498,530
2005	University of Texas at San Antonio	Teaching Teachers to Teach Critical Reading Strategies (CREST) Through an Intensive Professional Development Model	926,814
2005	Education Development Center Inc.	Examining the Efficacy of Two Models of Preschool Professional Development in Language and Literacy	2,834,272
2005	WestEd	A Randomized Controlled Study of the Efficacy of Reading Apprenticeship Professional Development for High School History and Science Teaching and Learning	2,997,972
2005	University of Michigan	Assessment of Pedagogical Knowledge of Teachers of Reading	1,677,575
2005	Utah State University	Connecting Primary Grade Teacher Knowledge to Primary Grade Student Achievement: Developing the Evidence-Based Reading/Writing Teacher Knowledge Assessment System	926,814
2004	DePaul University	Algebra Connections: Teacher Education in Clear Instruction and Responsive Assessment of Algebra Patterns and Problem Solving	1,052,822
2004	Educational Testing Service	The Relationship Between Mathematics Teachers' Content Knowledge and Students' Mathematics Achievement: Exploring the Predictive Validity of the Praxis Series Middle School Mathematics Test	1,573,623
2004	Purdue University	Professional Development in Early Reading	1,418,091
2004	University of North Carolina at Chapel Hill	Improving Teacher Quality to Address the Language and Literacy Skills of Latino Children in Pre-Kindergarten Programs	1,467,046
2004	University of Chicago	Can Literacy Professional Development be Improved With Web-Based Collaborative Learning Tools? A Randomized Field Trial	3,046,054
2004	Florida State University	Assessing Teacher Effectiveness: How Can We Predict Who Will Be a High Quality Teacher?	978,698
2004	RAND Corporation	Teacher Licensure Tests and Student Achievement	1,590,967
2004	Vanderbilt University	Opening the Black Box in Choice and Regular Public Schools (a research project within the National Research & Development Center on School Choice)	3,262,563
2004	University of North Carolina at Chapel Hill	National Research Center on Rural Education Support (estimated amount of total award devoted to teacher quality research)	11,200,000
2004	Vanderbilt University	Scaling Up Peer Assisted Learning Strategies to Strengthen Reading Achievement	5,618,237
2003	LessonLab Inc.	Improving Achievement by Maintaining the Learning Potential of Rich Mathematics Problems: An Experimental Study of a Video- and Internet-Based Professional Development Program	1,594,021

Appendix IV: Institute of Education Sciences' Sponsored Research on Teacher Quality, 2003–2009

Year	Research recipient	Teacher quality project	Grant award
2003	Haskins Laboratories	Mastering Reading Instruction: A Professional Development Project for First Grade Teachers	2,912,063
2003	Instructional Research Group	Teacher Quality Study: An Investigation of the Impact of Teacher Study Groups as a Means to Enhance The Quality of Reading Instruction for First Graders in High Poverty Schools in Two States	2,820,670
2003	University of Michigan	Identifying Key Components of Effective Professional Development in Reading for First Grade Teachers and Their Students	1,677,575
Total	grants		\$159,393,859

Source: GAO analysis of IES research projects.

# Appendix V: Comments from the U.S. Department of Education



#### UNITED STATES DEPARTMENT OF EDUCATION

WASHINGTON, D.C. 20202-\_\_\_\_\_\_ June 9, 2009

Ms. Cornelia M. Ashby Director Education, Workforce, and Income Security Issues U.S. Government Accountability Office 441 G Street, NW Washington, DC 20548

Dear Ms. Ashby:

I am writing in response to the recommendation made in the Government Accountability Office (GAO) report, "Teacher Quality: Sustained Coordination among Key Federal Education Programs Could Enhance State Efforts to Improve Teacher Quality" (GAO-09-593).

This report had one recommendation for the Secretary of Education. Following is the Department's response.

Recommendation: To ensure that departmental goals to improve teacher quality are achieved and that its many related efforts are mutually reinforcing, we recommend that the Secretary of Education establish and implement a strategy for sustained coordination among existing departmental offices and programs. A key purpose of this coordination would be to facilitate information and resource sharing as well as to strengthen linkages among teacher quality improvement efforts to help states, school districts, and institutions of higher education in their initiatives to improve teacher quality.

Response: While the Department agrees that coordination is beneficial, the Department's experience indicates that creating interdepartmental committees solely for the purpose of coordinating agency activities or sharing information across offices is not always a useful exercise. While the Department will review the advisability of forming a cross-program committee, it would first want to ensure that such a group would truly lead to improvements in the way the Department coordinates its approach to teacher quality and the way States and school districts promote teacher quality.

The Department has effectively brought together individuals from different offices to work together on discrete issues or problems related to teacher quality when such action is needed. Good examples are the coordination that occurred on the implementation of the highly qualified teacher (HQT) requirements of the Elementary and Secondary Education Act, as amended, (ESEA) and on the development of common performance measures for teacher professional development programs.



Our mission is to ensure equal access to education and to promote educational excellence throughout the Nation.

In recent months, the Department has taken additional actions to coordinate activities in response to new demands and needs. The Department has initiated a number of coordination efforts to address the American Recovery and Reinvestment Act of 2009 (ARRA) requirements. One team, which is led by the Secretary's advisors on teacher issues and made up of representatives from several program offices, focuses on teachers and school leadership. As additional needs arise, such as those that may emanate from the implementation of the ARRA or the development of proposals for the reauthorization of the ESEA or other legislation, the Department can create additional inter-office working groups or coordinating bodies to address them.

Efforts to coordinate program implementation cannot fully eliminate barriers to program alignment. Individual programs have unique, and often inconsistent, legislative definitions and requirements. While increased internal coordination may alleviate some problems, it is unlikely to completely resolve them. The draft report identifies a cogent example: on page 19, the authors note that the Improving Teacher Quality State Grants (ITQ) program has a statutory definition of "high-need local educational agency," while the Mathematics and Science Partnerships program does not have a statutory definition of that term. The authors claim that this inconsistency may hinder States' ability to coordinate their implementation of the two programs, but intra-agency coordination could not eliminate this inconsistency.

The enclosed document includes the Department's suggested technical changes to the report.

We appreciate the opportunity to share our comments on the draft report.

Sincerely,

2 suph

Delegated Authority to Perform the Functions and Duties of the Assistant Secretary for Elementary and

Secondary Education

Enclosure

## Appendix VI: GAO Contacts and Staff Acknowledgments

#### **GAO Contact**

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### Staff Acknowledgments

Bryon Gordon (Assistant Director) and James Whitcomb (Analyst-in-Charge) managed all aspects of the assignment. Nancy Purvine, Ed Bodine, and Kristin Van Wychen made significant contributions to this report in all aspects of the work. Jean McSween, Stuart Kaufman, and Ying Long provided key technical support, and James Rebbe provided legal support. Christopher Langford assisted with quality assurance. Jessica Orr contributed to writing this report. Mimi Nguyen developed the graphics for the report.

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